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ABSTRACT

Responsibilities or practice requirements of pharmacy interns at three levels of expertise are outlined, and guidelines for using the designations in supervision and instruction are presented. Recent trends in pharmacy internship and the methodology that was used to identify performance dimensions, responsibilities, and tasks are examined, along with suggested minimum standards for preceptors and for pharmacies acting as training sites. The beginning level internship duties are largely technical in nature, while the intermediate level internship duties are professional and are based on prerequisite knowledge about drug products. Advanced internship activities occur concurrently with or follow completion of courses in pharmacology, therapeutics, and prescription dispensing. The following dimensions of pharmacy practice are outlined: selecting drug products and ingredients, compounding prescriptions, dispensing prescriptions, monitoring and evaluating therapy, communicating with patients about legend drugs, communicating with patients on selection of drugs and supplies, communicating with health care professionals, maintaining professional and ethical standards, providing emergency pharmacy services, fulfilling general public health and civic responsibilities, managing pharmacy operations, and managing pharmacy personnel. Approaches to intern evaluation, preceptor and site evaluation and program evaluation are examined, and the pharmacist's participation in association activities, continuing education pursuits, and maintenance of drug information are addressed. Information concerning the development of performance objectives and a list of pharmacy library references are appended. (SW)

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THE INTERNSHIP EXPERIENCE

A Manual for Pharmacy Preceptors and Interns

Prepared by the
Joint Committee on Internship
of the
National Association of Boards of Pharmacy
and the
American Association of Colleges of Pharmacy

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PREFACE

This third NABP-AACP internship manual presents new content and new style in contrast to previous manuals. Earlier publications provided general descriptions of ideal practice and learning conditions, suggesting "what should be." This publication shifts the emphasis to a detailed description of "what is" and suggests how a carefully delineated definition of practice may facilitate instruction and evaluation of interns.

Validation was the main theme in development of the manual. The practice performance descriptions are based on a nationally validated study of practice plus a review of all existing internship and externship manuals developed by boards and colleges of pharmacy. The committee has been mindful of the trend toward increased production of practical experience programs by colleges of pharmacy. Accordingly, the sections on instruction and evaluation have been written to be applicable to both traditional board-supervised internship and college-coordinated externship programs.

Hopefully the manual's utility will extend beyond its use in teaching and evaluating interns in practice settings. The performance descriptions contained in this manual may also serve as a curriculum design and evaluation tool. They may provide linkages between segments of practice performance and the applied portions of the intern's knowledge base which are integrated into the performance.

P.G.G.

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The Joint Committee is comprised of the NABP Internship Committee and the AACP Externship Subcommittee. Dr. John F. Schlegel, Assistant Executive Director, AACP, assisted the project by collecting and providing externship manuals and provided helpful consultation in the validation of the practice performance descriptions in Section IV.

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I. INTRODUCTION

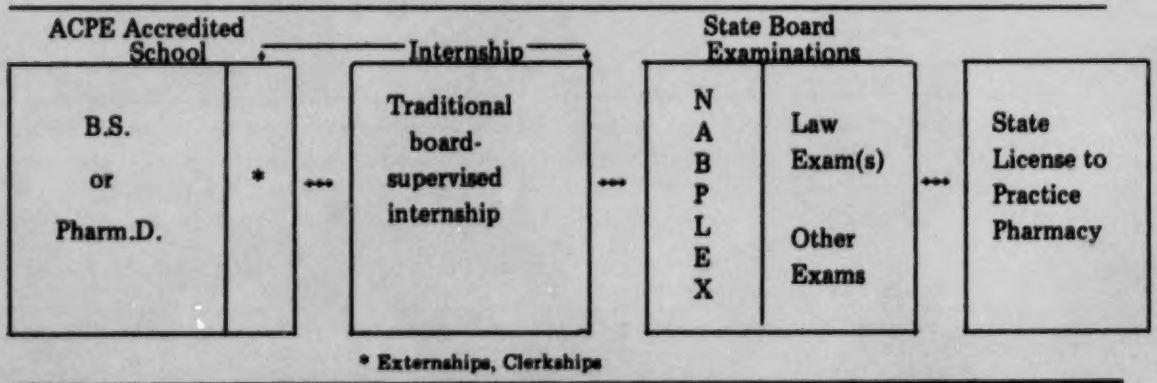
A. From Apprenticeship to Internship

The internship programs in American Pharmacy until the current decade were vestiges of an apprentice system borrowed by early American apothecaries from European models for training pharmacists. Before pharmacy schools were established in this country, pharmacists "apprenticed" to an apothecary and entered the practice of pharmacy without the need for formal education or even a state license to practice, neither of which existed in early colonial times. As schools of pharmacy were established, study of pharmaceutical sciences, either before, during or after practical experience became more commonplace. The debate between advocates of practical experience and formal scientific education was terminated with the establishment of state boards of pharmacy and licensing examinations. Thus the practitioners, borrowing the authority of the state, reserved for themselves the tasks of determining fitness to practice and regulating the practice experience component of the licensure requirements. The schools, relieved of responsibility for providing practice experience, were then free to pursue the teaching of basic and pharmaceutical sciences, a separation which was continued until the 1960's.

B. Establishment of the Internship System

After graduation from a college of pharmacy approved by the state board of pharmacy became a requirement for licensure in every state, the internship component of a pharmacist's education was established. Planned as an opportunity for the pharmacy student to translate classroom and laboratory training in the pharmaceutical sciences into practical applications, the control of internship was retained in state practice acts for administration by state boards of pharmacy. Together with graduation from a college of pharmacy approved by the state board of pharmacy and successful passage of the licensing examination, internship completes a tripartite credentialing system leading to the license to practice pharmacy.[1] See figure 1.

Figure 1: The Credentialing System in American Pharmacy



[1] Although state practice acts usually require approval of colleges of pharmacy by the state board of pharmacy, the actual evaluation of educational programs at each of the nation's 72 colleges of pharmacy is accomplished by the American Council on Pharmaceutical Education. This recognized accrediting agency has representation from practitioners, educators, board of pharmacy members and representatives of the public. Its list of accredited colleges of pharmacy is universally recognized by state boards of pharmacy.

C. Definitions

The term "internship," as used in this text, means the 1500 hour practical experience requirement contained in most state pharmacy practice acts and maintained as a condition for interstate reciprocity of licenses.[2] It may include postgraduation experience, supervised practice during summer vacations, limited amounts of experience gained concurrent with attendance at a college of pharmacy, and experience gained during college coordinated externship and clinical clerkship programs.[3]

The term "externship," as used in this text, is defined as a college coordinated practical experience program with the following characteristics.

1. It is conducted outside the classroom in licensed pharmacies.
2. It includes broad experiences in all distributive and patient oriented practice tasks.
3. It is supervised by a pharmacist preceptor with a 1:1 teaching and supervisory relationship between preceptor and extern.
4. It is a component of the college's curriculum for which academic credit is given.
5. It has been evaluated and approved by the state board of pharmacy.

The term "clerkship" or "clinical clerkship," as used in this text,is defined as a college coordinated practical experience program with the following characteristics.

1. It is conducted in patient care settings where the student is provided with actual experiences in patient care.
2. Emphasis is placed on all phases of drug therapy relative to the disease states of individual patients.
3. Primary student activities involve provision of clinical services on either an outpatient or an inpatient basis.
4. General drug distributive functions may be minimized.
5. It has been evaluated and approved by the state board of pharmacy.
6. It is a component of the college's curriculum for which academic credit is given.

Because "Externships" and "Clerkships" are subsets of Internship, when the term "Internship" is used throughout the manual it may refer to either traditional board sponsored internship or to college coordinated externships or clerkships, depending on the context.

The practice of pharmacy has been defined by some as a health service, the clinical application of which includes the encouragement of safety and efficacy in the prescribing, dispensing, administering and use of drugs and related health articles for the prevention of illness and the maintenance and management of health. Pharmacy practice has also been characterized as having three general levels of competence.(1) First, a general level of competence exists which is assured by graduation from a college or school of pharmacy accredited by the ACPE, completion of internship and successful passage of the state licensure examination. This level of competence prepares the intern to practice as a staff pharmacist in either community or hospital pharmacies or to assume other professional roles. A second

[2] The most recent standard for internship experience is Article II, Section 3 of the NABP Bylaws which requires that credit for practical experience be given for time completed after one year of professional school. Students should consult the secretary of the state board of pharmacy in their state since these standards vary. Several states require 2000 hours of experience, including some postgraduate experience.

[3] Students should consult with the secretary of the state board of pharmacy in their state to determine the amount of internship credit granted for externships and clerkships produced by their colleges. State board policies also vary concerning the amount of internship time granted for special types of learning experiences in the pharmaceutical industry, rural health programs, COSTEP, etc.

level of competence occurs after initial entry level licensure. Because of role "differentiation" between pharmacists or variations in practice environments, managerial roles evolve or "differentiated" tasks develop which are unique to those environments, i.e., the pharmacy manager, the IV therapy pharmacist, the nursing home consultant. A third level of competence is the pharmacy specialist who practices by using a body of scientific knowledge and skills so unique that separate credentialing mechanisms beyond initial state licensure are in place or are being developed, i.e., the nuclear pharmacist. (2)

D. Recent Trends in Pharmacy Internship

Leaders of NABP and AACP became aware that pharmaceutical science instruction by the colleges of pharmacy and practical experience obtained in traditional internship programs were often not systematically integrated. Internship, in many instances, had become increasingly separated from classroom activities. Students perceived that instruction in "theory" was the responsibility of the colleges, and instruction "on the job" was usually unstructured, often limited by the demands and pressures of production in practice, and measured by quantitative rather than qualitative standards.

1. Trends Fostered by Boards of Pharmacy and NABP Standards

Many boards of pharmacy responded to the gap between the classroom and practice learning experiences by specifying internship learning objectives, establishing criteria for preceptor and site selection, and by monitoring and evaluating internship performance. Regulations were promulgated in many states to effect new internship standards. The National Association of Boards of Pharmacy encouraged higher standards and increased uniformity in the criteria for internship training in its member states. The NABP was particularly mindful of the need for standardization in order to insure free mobility of pharmacists in the reciprocity process. Collectively, the board of pharmacy members of NABP addressed the quantitative internship standard by reducing, from 2000 to 1500 hours, the internship time required as a condition for licensure by reciprocity (3). Simultaneously, the new standard encouraged the establishment of college based demonstration projects to evaluate new clerkship and externship programs. Originally, a ceiling of 400 hours was placed on the college coordinated externship and clerkship time boards of pharmacy would recognize for internship credit. Now, with the evolution of these clerkships and externships, and following their evaluation by boards of pharmacy, the quantitative time for granting internship credit for such programs has been removed as a condition for reciprocity (4). Colleges of pharmacy may now coordinate for their state board's approval practical experience programs incorporating up to the total number of hours which satisfy their particular board's internship standards. Patient oriented and distributive experience is usually granted full hour-for-hour internship credit, but classroom and laboratory time is not.

2. Trends Fostered by College Accreditation Standards

The standards of the American Council on Pharmaceutical Education have also fostered this expansion of college of pharmacy involvement in coordination of practical experience programs. The 1974 standards of the ACPE included the following requirement:

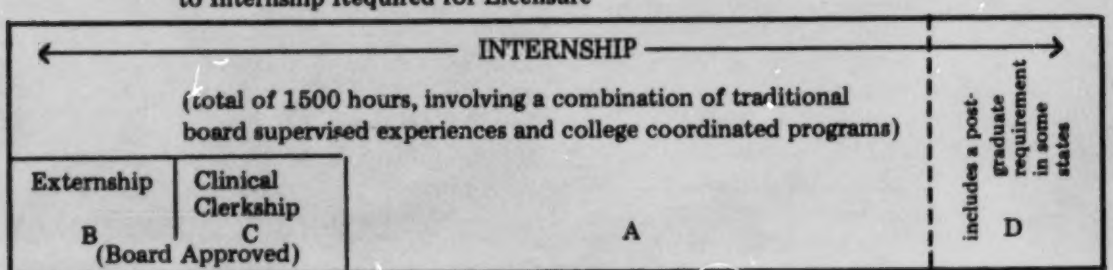
"The Council believes that the experiences students gain in the clinical courses (including clerkships and externships) should be of such caliber so as to serve in lieu of the internship requirement for licensure. The council expects, therefore, that a curriculum be designed to include an externship and other clinical components that will lead to the degree of professional competence in students required for admission to the licensure examination. The externship will provide the student with experiences in a variety of patient care settings where his work will be supervised by a number of practicing pharmacists, qualified to serve as preceptors. The externship will be guided by a policy established by the faculty, one member of which will be responsible for directing and coordinating the program."(5)

It should be noted that this involvement in responsibility for coordination of practical experience programs did not alter the legal nature of the internship requirement as a condition for admission to the licensure examination. As Figure 1 indicated, increasing amounts of the internship requirement are being coordinated by the colleges, but responsibility for the internship program remains, as a matter of state law, that of each board of pharmacy.

Advisory committees, composed of representatives of the colleges, professional associations and members of the state pharmacy boards, have been convened to evaluate the college coordinated programs and to make recommendations to the board regarding the acceptance of all or portions of the college coordinated programs for internship credit. This mechanism has insured that only patient centered practice activities, as compared to classroom and laboratory activities, are recognized as meeting internship standards. The NABP in its 1979 annual meeting passed a resolution calling for boards of pharmacy to accept externship experience in lieu of internship on an "hour-for- hour basis" if it includes experience in drug distribution and management systems, communication and patient monitoring skills, drug information retrieval and interpretation skills (6).

The contribution of college coordinated externship and clinical clerkship programs to overall legal internship requirements is illustrated in Figure 2. The 1500 hour internship requirement in most state practice acts may include postgraduate experience (D), experience during vacations (as defined by individual states) (A), limited amounts of special industrial or clinical internships approved by the state board (A), and college coordinated externships and clinical clerkships approved by the board (B,C). The current bylaws of NABP permit the expansion of the college coordinated components of internship according to state board of pharmacy standards. Colleges of pharmacy are challenged by this requirement to continue to expand the practical experience components of their curricula so that the accreditation standards may be met.

Figure 2: The Contribution of College Coordinated Externship and Clerkship Programs to Internship Required for Licensure



3. Trends within the Colleges

Learning by experience and the use of externships are not new to the pharmacy education process. The "roots" of college supervised practical experience programs can be traced back to the "Washington Experiment" in 1944 which was designed to combine theory and practice of pharmacy in a practical way by utilizing pharmacies and pharmacists in a course taught at the University of Washington College of Pharmacy (7). However, an AACP committee offered a resolution disapproving the granting of credit toward a degree for practical work done in drug stores. The resolution passed and the Washington Experiment was discontinued. Throughout the 30 years that followed numerous plans and proposals were suggested in which students were to be placed in pharmacies to observe methods of practice and management as part of the curriculum. Numerous committees and subcommittees of organizations such as the NABP, AACP and APhA have recommended that colleges assume some or all of the responsibility for coordinating practical experience for pharmacy students.

Schools of pharmacy working with boards of pharmacy and their state advisory committees began developing supervised professional experience programs. The activity surrounding the development of these programs led to a conference sponsored by the AACP Subcommittee on Internship Training in Cooperation with the NABP Committee on Internship in the fall of 1973. The conference focused on the design, implementation and evaluation of school related professional experience programs. Presentations representing a cross section of professional experience programs and specific operational aspects of these programs were featured. Representatives from most U.S. colleges of pharmacy were in attendance. The interest and enthusiasm generated from this conference were strong driving forces which helped lead to the current accreditation standard of the American Council on Pharmaceutical Education. Since the incorporation of that standard for accreditation, a tremendous outgrowth of activity by the colleges in practical experience training has followed. The AACP charged a subcommittee to maintain a continuous communication between member schools of activities related to practical experience programs. Some of the accomplishments of this subcommittee have been the development of standardized definitions of "Externship" and "Clerkship," administration of a national survey on practical experience programs and the establishment of a newsletter which forms a communication link between directors of externship and clerkship programs.

E. Defining Practice Performance

The Joint Committee on Internship Training was committed to preparing a text which would include an exhaustive description of pharmacy practice performance. Believing that the typical pharmacy graduate is well educated in the pharmaceutical sciences, the committee sought a validated and comprehensive performance description into which prior classroom and laboratory training could be integrated. This task was undertaken while being mindful of the several environments of practice for which boards of pharmacy certify entry level competence. In addition, needs of the varied "groups" which would be using the text were also considered. . .board members, preceptors, externship/clerkship coordinators, interns, etc.

1. **Methodology for Identifying Practice Dimensions, Responsibilities and Tasks**
In defining practice performance, the committee adopted an overall performance based approach to describing the activities of a pharmacist. Instead of basing its description upon what a pharmacist must *know* to practice, the approach taken was based on observable performance of the pharmacist, i.e., what a pharmacist must *do* in practice. The description was viewed as a series of performance objectives which, if achieved by advanced interns, would demonstrate competence to enter practice. These objectives were designed to yield a description of a competent staff pharmacist. In taking this approach, check lists of appropriate learning activities for various levels of interns were also provided.

The committee relied heavily upon two recently completed studies designed to identify and validate pharmacy practice performance. The practice responsibilities and tasks described in the National Study of the Practice of Pharmacy provided the basic description of practice.[4] Using the second study, these were divided into 13 dimensions of pharmacy practice which are useful for purposes of organizing practice activities into separate components for instructional and performance evaluation purposes.[5] The dimensions of pharmacy practice are shown in Figure 3.

Figure 3: Dimensions of Pharmacy Practice

A. SELECTING DRUG PRODUCTS AND INGREDIENTS
B. COMPOUNDING PRESCRIPTIONS
C. DISPENSING PRESCRIPTIONS
D. MONITORING AND EVALUATING THERAPY
E. COMMUNICATING WITH PATIENTS ABOUT LEGEND DRUGS
F. COMMUNICATING WITH PATIENTS ON SELECTION OF OTC DRUGS AND MEDICAL/SURGICAL SUPPLIES
G. COMMUNICATING WITH HEALTH CARE PROFESSIONALS
H. MAINTAINING DRUG INFORMATION
I. MAINTAINING PROFESSIONAL AND ETHICAL STANDARDS
J. PROVIDING EMERGENCY PHARMACY SERVICES
K. GENERAL PUBLIC HEALTH AND CIVIC RESPONSIBILITIES
L. MANAGING PHARMACY OPERATIONS
M. MANAGING PHARMACY PERSONNEL

In order to validate the tasks enumerated in the National Study of the Practice of Pharmacy, members of the joint committee reviewed internship manuals from state boards of pharmacy and externship/clerkship manuals from the colleges of pharmacy. Each performance objective or internship training task listed in the

[4] See "A National Study of the Practice of Pharmacy," a 1978 publication of the American Pharmaceutical Association, prepared by the Educational Testing Service of Princeton, New Jersey. The practice responsibilities and tasks described in this study report are also summarized in an article in American Pharmacy, Vol: NS19:3, Mar. 1979, entitled, "Standards of Practice for the Profession of Pharmacy." The national study was sponsored jointly by the American Pharmaceutical Association and the American Association of Colleges of Pharmacy.

[5] Because the National Study of the Practice of Pharmacy used a statistical procedure which yielded only four large dimensions of pharmacy practice performance, a system for organizing practice responsibilities and tasks into smaller dimensions more suitable for instruction and evaluation was sought. The dimensions listed in Figure 3 were developed by the Curriculum Improvement Office of the University of Minnesota College of Pharmacy, using the Flanagan Critical Incident Technique and the Smith and Kendall Retranslation Technique. This project was supported by Grant No. 05D000599-01 from the Department of Health, Education and Welfare, Public Health Service.

manuals was cross-referenced to the dimensions and responsibilities identified in Figure 3. This process not only served to validate the responsibilities and tasks identified in the national study, but identified numerous additional responsibilities and tasks enumerated in the manuals. Working in subcommittees, members of the joint committee drafted and edited the responsibilities and tasks into their present form as shown in Section IV, page 27.

It should be emphasized that the responsibilities and tasks are generally expressed in terms of performances required by competent *staff* pharmacists. Several responsibilities and tasks are environment-specific, relating either to institutional or community practice. Others relate more directly to the pharmacist with managerial responsibilities. This wide range in responsibilities and tasks is incorporated into a single statement of practice performance. This statement may be used for planning practical experience programs for the general practice pharmacist at the point of entry to practice.[6] Differences in internship training environments and differences in practice roles are recognized. Exposure to different roles and environments is encouraged.

2. Performance Definition Format

The format of the performance description presents practice *dimensions*, practice *responsibilities* and practice *tasks* in the form of a pyramid. The largest separate segment of performance, at the top of the pyramid, is called a practice dimension. For example:

C. DISPENSING PRESCRIPTIONS ← Dimension

Dimensions are subdivided into a number of practice *responsibilities*.
For example:

C. DISPENSING PRESCRIPTIONS ← Dimension

I. Receives prescription order and determines priority of handling
II. Interprets and evaluates prescription order for completeness and legality
III. – XIII. (See pages 32-37)

↔ Responsibilities

Each practice responsibility, in turn, is subdivided into a number of related, sometimes sequential, *tasks*. For example:

C. DISPENSING PRESCRIPTIONS ← Dimension

II. Interprets and evaluates prescription order for completeness and legality ← Responsibility

[6] When a pharmacist performs responsibilities and tasks which are based on different practice environments, those responsibilities have been called "differentiated" responsibilities. The hospital pharmacist who prepares IV admixtures is differentiated from the community pharmacy manager. These environment-based differences do not distinguish a true pharmacy specialist who performs responsibilities requiring considerable special education and experience, i.e., the nuclear pharmacist.

a) Checks prescription order to verify that it can be legally dispensed, checking the following items:
(1) The prescriber is identified
(2) The order is issued by a person authorized to prescribe
(3)-(7) (See page 31)

b) Checks for completeness of prescription order to see that the following are legibly included on the prescription:
(1) Name of medication
(2) Number of dosage units to be dispensed
(3)-(7) (See page 31)

← Tasks

REFERENCES

(1) Pharmacists for the Future: The Report of the Study Commission on Pharmacy, Health Administration Press, Ann Arbor, Michigan, (1975) pp. 107-112

(2) Final Report: APhA Task Force on Specialties in Pharmacy, Journal of the American Pharmaceutical Association NS14, no. 11, (1974) pp. 618-621

(3) Bylaws of the National Association of Boards of Pharmacy, Article II, Section 4, National Association of Boards of Pharmacy Proceedings, (1974) p. 484

(4) Bylaws of the National Association of Boards of Pharmacy, Article II, Section 4(3), Report of the Committee on Constitution and Bylaws to the 75th Annual Meeting of NABP, (1979) p. 105

(5) Accreditation Manual, American Council on Pharmaceutical Education, 7th Ed., Chicago, Illinois, (1975), p. 14

(6) Resolution number 2, Report of the Committee on Resolutions to the 75th Annual Meeting of NABP, (1979), p. 309

(7) L. Wait Rising, "The Washington Experiment," American Journal of Pharmaceutical Education, 11 (1947) pp. 257-264

II. HOW TO USE THE MANUAL

This manual bridges the pharmaceutical sciences and the real world of practice and has benefited from recent methods for defining competence and for validation. The principal contribution of this manual is the specification of practice responsibilities and tasks. These are organized to apply to pharmacy practice *in general*, embracing some task differences which are based on practice environments. Thus, the manual may be used to plan and administer internship experiences in both the community and institutional setting.

The responsibilities and tasks in Section IV, page 27, are stated as descriptions of practice *performance*. They represent the performance level to be achieved at the time of licensure and entry into practice. In this chapter they are also organized to correspond with the intern's educational level and prior experience. Recognizing the differences in educational level of interns, a three level sequence is suggested in Section II-A. This permits a rational rotation and advancement through responsibilities and tasks.

This manual describes both general and differentiated responsibilities and tasks. Those believed by the joint committee to be essential to general practice are printed in bold face type in Section IV, page 27. Thus they should receive primary attention in pharmacy internship experiences. Other highly desirable differentiated responsibilities and tasks may be incorporated into the learning experience via demonstration or performance although care should be taken to give the highest priority to mastery of the general practice responsibilities.

The practice responsibilities and tasks described in Section IV, page 27, include those which are performance objectives for clinical clerkships. (See Sections D, E and G.) Pages 37-41, 44-46.

This manual does not describe either specific intermediate learning objectives or instructional methods for the clinical clerkship. These differentiated clinical tasks and the learning objectives to achieve them could appropriately be the subject of a supplemental manual to be developed for clinical clerkship preceptors.

A. Levels of Intern Performance

Matching the intern's duties with his/her educational level is important for both learning and public safety. Depending on the intern's level of knowledge, learning experiences may range from technical to highly professional tasks. For purposes of supervision and instruction this range of learning activities may be divided into three phases. Preceptors should arrange learning experiences systematically in these phases.

Beginning level internship duties are largely *technical* in nature and are not based on the integration of previously learned information about drug products or therapeutics. Such technical duties permit the intern, in subsequent academic work, to organize classroom and laboratory learning meaningfully on the basis of technical experience with drug products and pharmacy practice. Mastery of such tasks at an early level permits the intermediate and advanced intern to progress to higher areas of performance and learning.

Intermediate level internship duties are professional in nature and are based on prerequisite knowledge about drug products. After the student has begun course work dealing with the composition and action of drug products and the preparation of dosage forms, then compounding and dispensing of drugs during internship permits the integration of previously acquired knowledge.

Advanced internship activities occur concurrently with or follow completion of courses in pharmacology, therapeutics, and prescription dispensing. At this educational level (which

includes the externship) the intern should be permitted to perform all professional tasks under supervision, including those requiring the application of professional judgement. Most externs should experience beginning and intermediate learning activities before they embark on their externship program. However, externships may be structured to include both intermediate and advanced internship activities.

Care should be taken to avoid assignment of complex practice tasks to the beginning intern. Conversely, impeding the systematic progress (based on educational level) of interns from beginning to intermediate to advanced internship status is contrary to good educational practice. Rapid advancement from level to level is possible for students at advanced educational levels and for graduate interns. Careful matching of the intern's duties to his/her educational level also assures the preceptor that the intern will understand the duties assigned and will avoid making incorrect judgements and medication errors. The three levels are presented as a conceptual guide to preceptors. A range of activities exists from simple to complex, from technical to professional, but *the classification of experiences presented is not meant to be absolute.* The intern's educational level and experience background will affect the intern's progress through the learning levels.

1. Beginning Internship Experiences

   A thorough orientation to the pharmacy is necessary to facilitate efficient learning. Inspection of all areas is helpful together with reasons for their location. Introduction to key personnel should include a description of their responsibilities. The hospital pharmacy orientation should also include an introduction to major departments.

   The preceptor's entry interview with the intern will provide information regarding the intern's educational level and prior experience. The student with no prior experience should begin with various technical tasks, rotating through those tasks to become proficient in each of them. The order of progression through the experiences will be determined by the preceptor but should include the following types of technical tasks:

   a. Receiving and pricing orders for drugs and related supplies
   b. Stocking drugs and related supplies
   c. Checking and recording inventory levels
   d. Completion of cash and charge transactions
   e. Handling returns and credits
   f. Retrieving and filing records
   g. Performing prepackaging tasks under supervision
   h. Performing unit dose packaging tasks under supervision
   i. Performing unit dose selection tasks under supervision
   j. Distributing drugs to patients and other hospital departments
   k. Complying with legal and professional standards

2. Intermediate Internship Experiences

   Intermediate training activities include *professional* tasks performed under supervision. They generally precede the advanced training activities which call for professional *judgements* required in practice. Basic knowledge about drug products is a prerequisite to the intermediate phase.

   Examples of intermediate duties include the following *when performed under supervision*:

   a. Providing over-the-counter drugs

b. Providing medical-surgical supplies
c. Reconstituting pharmaceuticals into dosage form suitable for administration
d. Compounding prescriptions
e. Bulk compounding
f. Preparation of sterile formulations
g. Packaging and labeling drugs
h. Dispensing prescriptions
i. Dispensing Schedule V over-the-counter drugs
j. Maintaining records of over-the-counter controlled substances dispensing and poison sales
k. Pricing products and services according to established policies
l. Monitoring proper drug storage conditions
m. Filing orders and invoices in compliance with law
n. Performing routine fiscal procedures
o. Complying with legal and professional standards

3. Advanced Internship Experiences

Advanced internship involves four components: 1) performance of intermediate internship duties at a higher level of professional *judgement*; 2) experiences in the clinical aspects of general practice; 3) exposure to advanced professional and administrative experiences; and 4) professional, general public health and civic responsibilities.

The following kinds of clinical activities may be experienced in general practice internships:

a. Interpreting and evaluating prescription orders for dosage, appropriate route of administration, frequency and duration of therapy
b. Interviewing patients to obtain information for patient profile
c. Reviewing patient profile before dispensing
d. Seeking drug-related information to identify potential problems regarding drug therapy
e. Monitoring patient records for indications of drug abuse or misuse
f. Integrating drug-related with patient-related information in order to determine appropriate course of action
g. Continuously evaluating and monitoring therapeutic response of patients to prescribed medication
h. Making recommendations regarding drug therapy to the patient
i. Answering patients' questions
j. Advising patients in personal health matters
k. Consulting with patients to properly identify symptoms in order to advise patients for self-medication
l. Referring patients to other health care providers and/or health resources where indicated
m. Making recommendations regarding drug therapy to the physician or other persons involved with the patient's care
n. Providing drug information to other health care professionals in a formal setting
o. Reviewing with and interpreting medication history to the physician or other person involved with patient's care

Professional and administrative supervised learning activities appropriate for the advanced level include the following:

a. Establishing drug quality specifications for drugs to be purchased
b. Selecting the manufacturing sources of drug products at the time of purchase
c. Developing and maintaining quality control procedures and records for drugs that are prepackaged, bulk-compounded, and sterile-product formulated
d. Evaluating application of drug product selection for brand name prescription orders in those cases where legally authorized
e. Selecting the manufacturing source of drugs to be dispensed for prescription orders written in generic terminology
f. Performing a final check of finished preparations to ensure that all steps in the compounding and dispensing process have been accomplished accurately
g. Consulting with prescribers and other health professionals about drug distribution policies and procedures
h. Initiating and maintaining a formulary system to meet the needs of patients and practitioners
i. Developing and maintaining an inventory system for all drugs and pharmaceutical supplies
j. Determining primary and alternate vendors for drugs and pharmaceutical supplies
k. Developing and implementing an appropriate pharmacy security system to prevent theft and/or drug diversion
l. Establishing and monitoring a system to ensure proper storage for perishable pharmacy items
m. Developing and maintaining a system for the regular removal of outdated or discontinued items
n. Developing and implementing systems for drug distribution and drug administration in institutional settings
o. Selecting, evaluating, organizing, maintaining, and utilizing a current library of drug information
p. Participating in "In-Pharmacy" and other continuing education programs for pharmacists
q. Maintaining professional and ethical standards
r. Providing emergency pharmaceutical services
s. Participating in emergency patient care activities
t. Complying with legal and professional standards

Although advanced internship training is not designed to prepare pharmacy managers, the intern should be exposed to the following activities:

a. Establishing and implementing written policies and procedures for pharmacy operations
b. Planning or assisting in the design and layout of physical facilities for pharmacy
c. Establishing and administering a pricing structure for pharmaceutical services and products
d. Establishing and maintaining an ongoing cost analysis program

e. Maintaining and reconciling accounts receivable from various third party payors
f. Preparing or participating in the preparation of the budget and its controls in providing for pharmacy services
g. Reviewing and preparing periodic reports of the pharmacy's fiscal performance in relation to budget
h. Negotiating with vendors regarding cost, delivery schedule
i. Assisting in design or implementation of computer systems for use in the pharmacy
j. Establishing, administering, and interpreting personnel policies and procedures
k. Preparing written job descriptions for pharmacists and nonpharmacists on the pharmacy staff
l. Recruiting, interviewing, selecting, and hiring pharmacists and nonpharmacists for the pharmacy staff
m. Supervising and evaluating job performance of pharmacy staff
n. Scheduling work hours for pharmacy staff
o. Administering wage, salary, and benefit programs for pharmacy staff
p. Instituting disciplinary action and discharging pharmacy staff for cause

Advanced internship may include the following professional, public health, and civic activities:

a. Participating in professional association activities
b. Observing activities of governmental health boards
c. Publicizing and participating in mass screening programs
d. Participating in community educational programs relating to health care and drugs
e. Participating in utilization reviews, medical audits, and medical care evaluations
f. Assisting in establishing, executing, tabulating, and evaluating clinical studies regarding drugs

B. Utilization of the Manual

1. Utilization by Boards of Pharmacy

Boards of pharmacy have been entrusted with the principal responsibility for assuring practice competence via the internship. The manual has utility for the boards in each of the following areas of responsibility:

a. *Providing a resource to boards of pharmacy for development or revision of their own internship manuals and intern performance evaluation systems* State boards of pharmacy internship manuals display a variety of approaches to competence definition, preceptor instruction and internship performance. Because the responsibilities and tasks in Section IV, page 27, have been validated nationally, local revisions may be made by boards to insure that all essential practice responsibilities and tasks are mastered by the intern.

b. *Providing a teaching and learning guide for preceptors and interns in traditional internship programs*
This manual, although not developed primarily as a replacement for locally developed internship manuals, should provide the essential information needed by preceptors and interns. State boards without internship manuals may obtain copies for distribution to preceptors and interns.[1]

c. *Resources for evaluation of internship programs*
Several variables affect the quality of the intern's learning experiences: choice of site and preceptor, type of site, scope of pharmaceutical services offered, educational level of intern, etc. Boards of pharmacy, using the practice definitions as a standard, may evaluate the quality of internship in their state by determining the scope of learning experiences offered by various sites. Such judgements about the quality of internship experience may be based on site visits, reports of preceptors or interns, and performance of interns on performance based examinations or performance ratings.

d. *Resources for determining the equivalency of college coordinated externships to traditional board supervised experience*
The trend toward development of experiential programs by colleges of pharmacy in order to qualify for internship credit, is facilitated by comparison of college coordinated learning experiences to the standards in this manual. Most boards of pharmacy have accepted hour-for-hour college coordinated experience programs meeting the standards described in this manual. Advisory committees and boards of pharmacy may judge the equivalence of such programs using these standards.

2. Utilization by colleges of pharmacy

Colleges of pharmacy have made significant progress in the inclusion of practical experience programs within their curricula. This has been facilitated by encouragement and cooperation by the boards of pharmacy, the ACPE standards for externship and clerkship, and willingness of the colleges to invest educational resources in such programs. This manual has utility for the college in at least four areas:

a. *Providing a resource for college externship coordinators for revision of their own manuals and extern performance evaluation systems*
Many innovative educational approaches were seen in the review of externship manuals by the joint committee. Most of the content of these publications appears in this manual. Colleges may utilize the nationally validated responsibilities and tasks in review of their own manuals to assure that all essential practice responsibilities are described for and mastered by the extern.

b. *Providing a teaching and learning guide to preceptors and externs*
Colleges without their own externship manuals may use this manual alone or as a supplement to other instructional materials.

[1] Additional copies are available from: Publications Editor, NABP, Suite 2210, One East Wacker Drive, Chicago, IL 60601

c. *Resources for the evaluation of externship/clerkship programs*
Several measures of extern performance are utilized by the colleges. The validity of each measure is enhanced by its relationship to the performance descriptions in Section IV, page 27. Because the practice behaviors are validated nationally, their use to develop standardized performance measures is suggested. Such measures could permit interstate and interschool comparisons of extern performance.

d. *Use of performance descriptions as a curriculum focal point*
With the performance descriptions as a starting point, each responsibility and task may be analyzed into its knowledge and performance components. (1,2) This procedure, known as task analysis, yields a body of knowledge which is prerequisite to the performance of the responsibility and task. The procedure also has the effect of identifying and validating that portion of the intern's pharmaceutical knowledge which is applied in specific practice performances.

3. Utilization by Preceptors
Several kinds of intern learning experiences are suggested by the responsibilities and tasks in the performance descriptions.

New Knowledge	(e.g., "It is our policy to purchase from the following "N" manufacturers on a direct basis for the following "X" reasons.")
New Skills	(e.g., "In order to tactfully explain to Mrs. Smith the contraindication between her prescription and her aspirin-containing over-the-counter product, try this approach. . ."
New Values And Attitudes	(e.g., "Don't you agree that it's more important to spend time with the patient than. . .")
Creative Ideas	(e.g., "That's a good suggestion. Why don't you redesign our patient profile to contain all the information we need and simplify our procedures at the same time.")

The performance descriptions are stated in terms of what the practicing pharmacist can *do*. The preceptor is responsible for presenting each of these tasks to the intern after assessing the intern's prior knowledge and experience.

a. *Sequencing the Learning Activities*
What learning activities should be arranged to complement the intern's current qualifications? A simple model is presented to show how the intern masters each task. Its logic may seem to be obvious, but is presented to insure that each task is thoroughly presented and mastered. Consider the following series of patient communication tasks, for example. . .
Advises patient (or agent) concerning appropriate drug use

—Mentions name of drug

—Explains reasons for taking medication, when appropriate
—Explains prescriber's dosage instructions:
    —Frequency and time of administration
    —Quantity
    —Duration of regimen
—Explains limitations controlling quantity of prescription and quantity and frequency of refills:
    —Explains whether prescription is refillable
    —Explains number of refills authorized
    —Explains reasons for refill limitations, procedure and time required
    —Explains partial filling
    —Explains third-party restrictions on prescription quantity
—Explains route of administration
—Provides special administration instructions where indicated
—Stresses importance of adhering to dosage regimen

By the end of the internship training, each intern should be able to converse with the patient, explaining thoroughly and professionally those communication tasks listed above which pertain to a given dispensing situation. This objective is met if the intern can demonstrate performance of these tasks in a variety of situations. It is logical to assume that the preceptor would first insure that 1) the intern is at the proper educational level, 2) the intern is instructed, and 3) the intern has had the opportunity to *observe* the preceptor during such consultations, before permitting consultations with the patients. A sequence occurs in the mastery of each task by the intern. The sequence is portrayed in Figure 4.

Figure 4: Learning Sequence

The intern learns by:	The preceptor teaches by:
Listening,* Reading	Telling
Observing	Demonstrating
Performing**	Supervising, Evaluating, Reinforcing

*Provision for questioning and feedback is always provided
** Achieving mastery of the task by *practice*

The model suggests the importance of "checking out" the intern with prior basic instructions and with several demonstrations instead of making assumptions about the intern's prior experience and competence, thrusting him/her, unprepared, into unfamiliar tasks. The model does not suggest that instructions and demonstration are to be repeated continuously, but that the intern moves through a sequence toward mastery of professional tasks. The intern is advanced as rapidly as the preceptor deems is prudent, consistent with the intern's understanding, cooperation, and willingness to perform new tasks.

For most responsibilities and tasks, mastery will be achieved and demonstrated after repetitive performance, i.e., skills in interpretation of prescription orders, labeling, dispensing, etc. Other tasks may be performed only infrequently in practice, i.e., handling of poison cases. To provide instruction in these tasks, discussion may be the only teaching opportunity.

To assist the preceptor and intern in recording the demonstration and performance activities for each task, the performance descriptions are accompanied by a series of notations which may be checked to indicate the sequence of intern learning for each task.

	Assigned	Discussed	Demonstrated	Performed
Interprets and evaluates prescription order for completeness and legality	( )	( )	( )	( )

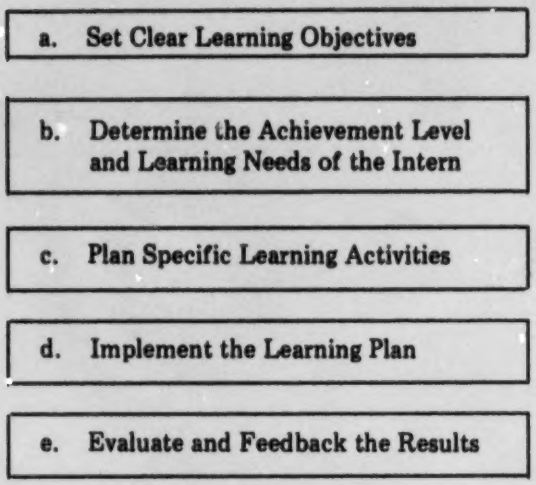
b. *The Importance of Feedback*

The effect of *reinforcement* in the intern's learning should be stressed. Learning will be reinforced by the intern's feelings about the learning process and about his/her performance. Approval by the preceptor and appreciation from patients and other health professionals are examples of factors which will encourage the intern to repeat proper performance. Another kind of reinforcement to be used in internship is awareness of results of internship performance. The intern needs to know whether he/she is performing adequately. Awareness of satisfactory performance is important as awareness of deficiencies in some areas. In addition to positive reinforcement from the preceptor for good performance, the preceptor should quiz the intern regularly on assigned tasks. Correct answers are positive reinforcers. Incorrect answers are not necessarily a sign of failure but a signal to re-emphasize a particular task.

c. *Key Steps in Internship Learning*

The learning activities suggested for interns can be summarized in five steps shown in Figure 5.

Figure 5: Steps in Internship Learning


a. Set Clear Learning Objectives
b. Determine the Achievement Level and Learning Needs of the Intern
c. Plan Specific Learning Activities
d. Implement the Learning Plan
e. Evaluate and Feedback the Results

1) *Set Clear Learning Objectives*
The dimensions, responsibilities and tasks of pharmacy practice have been developed on the basis of a nationally validated study. Further validation was provided by content review of internship and externship manuals. They represent a comprehensive description of the knowledge, skills and ability required to practice pharmacy. Preceptors are responsible for supervising the learning of potential pharmacists who will practice in both general practice locations and in differentiated roles. It is important that the intern master the general practice responsibilities and tasks in this manual and that he/she be exposed to the differentiated tasks as well. This may require arrangement of learning experiences outside of the preceptor's pharmacy.

2) *Determine the Achievement Level and Learning Needs of the Intern*
Specifically ask the intern what he or she knows, can do, and expects to learn during the internship period you are supervising. Review the performance descriptions with the intern. Decide what knowledge skills and attitudes are deficient in the intern's background and focus your teaching upon these deficiencies. See Section V, A—1, page 62.

3) *Plan Specific Learning Activities*
Based on the performance descriptions, and after considering the limitations of your place of practice as a teaching site, decide, with the intern, what learning experiences will be necessary to meet the learning objectives. Learning activities for the intern may include: daily practice responsibilities, observation of selected tasks, working on assignments and special projects, reading journal articles or other references, attending meetings and seminars, discussions with the preceptor and other pharmacists, and evaluation of performance.

4) *Implement the Learning Plan*
In addition to assigned practice responsibilities to be performed under the preceptor's supervision, arrange for special visits to other practice sites or with other health professionals. Such additional assignments enrich the intern's learning experience in areas not stressed in the preceptor's pharmacy. Determine when it will be best for the preceptor to personally meet with the intern to offer advice and feedback. Reward successful performance.

5) *Evaluate and Feedback the Results*
Schedule at least one evaluation meeting with the intern each week. During these sessions focus attention upon specific assignments or tasks performed during the week. Provide corrective and supportive feedback. See Section V—A, page 61.

d. *Educational Responsibilities of the Preceptor*
The integration of classroom knowledge into professional performance is firmly recognized as an essential activity in the achievement of professional competency. Thus, the preceptor's educational responsibilities may be specified and preceptors, just as classroom teachers, should be held accountable for their performance.

These educational responsibilities are universal and they are independent of the employer-employee relationships which necessarily occur in pharmacies as well as in other health care institutions. Employer-employee relationships are a component of the teacher-student relationship which is predominant in the internship. Care must be taken to insure that the employer-employee relationship does not contradict the educational purpose of internship.

The following list emphasizes the serious responsibilities inherent in accepting a preceptorship. The preceptor should:

1) Understand the dimensions, responsibilities and tasks of pharmacy practice and identify those tasks which are performed in the preceptor's pharmacy.

2) Assess the intern's knowledge and experience base before assigning learning experiences. From both the educational and public safety standpoints, the intern's duties should not exceed his/her educational level.

3) Review the assessment of the intern's entry level knowledge and experience with the intern, pointing out strengths and weaknesses and assigning learning experiences to correct deficiencies.

4) Set clear learning objectives for the intern, based on the intern's education and experience and upon the dimensions, responsibilities and tasks of pharmacy practice. Plan specific learning activities that will contribute to the mastery of each task and practice responsibility.

5) Orient the intern in the professional, operational and personnel policies and practices in the pharmacy. Thoroughly review such topics as patient confidentiality, security practices, professional demeanor, patient communication, communication with other health professionals, work schedules, lines of responsibility, relationships with the preceptor and other staff members, employee benefits, professional supervision, and intern performance evaluation.

6) Provide information and demonstrate appropriate practice performance.

7) Serve as a learning resource for the intern, as well as a role model instilling new values and attitudes.

8) Provide a broad scope of educational experiences. Special projects may be arranged (inservice training, design of record systems, newsletter writing). Exchange visits to other pharmacies may provide exposure to alternative distribution, recordkeeping and control systems.

9) Systematically rotate the intern's responsibilities to provide a wide variety of experiences as defined in Section IV, page

10) Coordinate and share teaching and supervisory responsibilities with other pharmacists from whom the intern learns.

11) Supervise the intern's performance in a manner which is appropriate for his/her educational level and experience. Close, continuous personal supervision is required. However, the advanced intern's learning is facilitated when some latitude in independent performance is permitted. Intermittent checks of performance and retrospective reviews may be appropriate for the advanced intern who has acquired the judgement making ability required for practice.

12) Evaluate the intern's progress periodically in all assigned responsibilities and tasks.

13) Provide positive corrective feedback during the learning process. Discuss questions, criticisms or disagreements in private.

14) Evaluate and document the intern's abilities during and at the completion of the learning experience. These evaluations may take the form of exit interviews, performance rating scales, review of student reports, and performance tests.

15) Meet with representatives of the board of pharmacy or of the college of pharmacy who are responsible for coordinating the internship or externship program.

16) Maintain competence by actively participating in continuing education.

4. Utilization by Interns

Performance guidelines and learning responsibilities of the intern are described below. The intern benefits from the complete specification of practice responsibilities and tasks which are described in Section IV, page 27. The manual may be used by the intern, in cooperation with the preceptor, to record progress toward mastery of the practice responsibilities and tasks. Because the complete scope of responsibilities and tasks may not be represented at a given internship training site, the intern is encouraged to seek experiences in a wide variety of practice settings, rotating systematically to achieve all of his/her learning objectives.

Because of variance in types of internship sites, and in the degree of structure provided by board supervised internships and college coordinated externships/clerkships, the intern assumes considerable responsibility for his/her own learning. With mastery of the responsibilities and tasks as an overall goal, the intern can benefit from this manual by systematically seeking out meaningful learning experiences.

a. *Performance Guidelines for Interns*

1) Identify yourself as an intern (or extern) at all times. Do not represent yourself as a pharmacist. The status of intern or extern is respected by the public and indicates to the patient the extensive amount of formal and practical experience needed to become a pharmacist.

2) Pharmacists enter practice with a professional degree and license that enables them to practice in various environments. You should seek a wide variety of internship experiences in both community and institutional pharmacy.

3) Insure that you are properly instructed and supervised in all procedures. Do not accept professional tasks that are inconsistent with your educational level and experience.

4) Do not make professional decisions or judgements without the advice of your preceptor or another pharmacist.

5) Accept the employer-employee relationship with your preceptor as part of the student-teacher relationship.

6) Keep certain information about your learning activities confidential, such as patient data, operational and pricing procedures.

7) Do not question the advice, direction, or criticism of your preceptor, or other pharmacists, in public. Discuss any questions, criticisms, or disagreements in private.

8) Accept and apply constructive criticism.

9) Seek ways to apply your knowledge of pharmaceutical sciences and of clinical therapeutics to practice situations. When tactfully applied, preceptors may appreciate and benefit from dialogue with interns about new drug information.

10) Question any activity which appears to be in conflict with state or federal drug laws and regulations. Report any problems to your preceptor or board/college coordinator. Remember that your internship registration is revocable for causes specified in law and that revocation or suspension could prevent receiving licensure as a pharmacist.

11) Maintain the appropriate internship registration and other reporting requirements of the state board of pharmacy.

12) When requested, evaluate the preceptor and the experience program fairly and objectively, offering constructive criticism.

13) Remember that obtaining adequate practical experience is your responsibility. Others will help, but it requires a conscientious effort on your part, not passive acceptance of inappropriate training.

b. *The Intern's Learning Responsibilities*

1) Seek your preceptor's assistance in planning systematic exposure to the learning experiences outlined in the manual.

2) Follow the assignments and learning objectives spelled out by your preceptor.

3) Master the repetitive and technical aspects of practice early to permit additional time to learn and perform the more complex judgement-making practice tasks and responsibilities.

4) Seek regular consultation with your preceptor to obtain feedback on performance and advice concerning areas in need of development.

5) Report your progress on forms provided by the board or college.

6) Approach internship with a deep commitment to all learning experiences involved in preparation for professional practice. Learning for an intern is not passive absorption of knowledge. It is a complex process involving the demonstration and then the actual performance of critical practice tasks.

REFERENCES

(1) Gagne', Robert M., "Learning Hierarchies," Educational Psychologist, 6, No. 1, (1968)

(2) Merrill, M.D., "Content and Instructional Analysis for Cognitive Transfer Tasks," AV Communications Review, 21, (1973), p. 109

III. PRECEPTOR AND SITE SELECTION

Procedures for the application of standards for preceptors and sites may differ. Colleges of pharmacy may establish discriminating preceptor and site selection standards with greater ease than state boards of pharmacy. Standards for board supervised internship programs involve due process in standard setting in the form of internship regulations and are based on distinctions between competent practitioners and competent practitioner-teachers practicing in suitable training sites.

A. Suggested Minimum Standards for Preceptors

1. The preceptor is licensed in the jurisdiction in which he/she practices pharmacy. Colleges and boards may establish additional educational and experience requirements in their respective programs.

2. The preceptor should participate actively in continuing education programs and preceptor training conferences.

3. The preceptor has practiced pharmacy for at least one year.

4. The preceptor has demonstrated competence as a teacher, effectively combining instruction and supervision, and utilizing good communications skills in teaching and practice.

5. The preceptor, and all pharmacists at the training site, has maintained an outstanding ethical and legal compliance record.

6. The preceptor should participate actively in local, state, and national professional association activities.

B. Suggested Minimum Standards for Pharmacies Selected as Training Sites

1. The scope of pharmaceutical services provided and the volume and variety of prescription, over-the-counter drugs and medical-surgical devices dispensed should be suitable to furnish a wide range of general practice experiences. Large pharmacies with differentiated responsibilities and tasks among pharmacists should provide for a systematic rotation of intern experiences through all general practice activities.

2. The pharmacy should maintain a patient-oriented practice. The use of patient profiles is encouraged. Hospital pharmacies should provide opportunity for chart review.

3. The pharmacy is clean, orderly, well lighted, and presents an acceptable professional appearance.

4. The pharmacy routinely provides health care information to patients and other health care professionals.

5. The pharmacy maintains an acceptable professional library.

6. Pharmacies providing services on a limited, differentiated or specialized basis should be considered as internship training sites, i.e., nuclear pharmacies, skilled nursing home pharmacies, etc. However, care should be taken to limit the amount of training time in such pharmacies so as to permit adequate experience in general practice pharmacies in which all of the generalized responsibilities and tasks of practice may be experienced.

IV. PHARMACY PRACTICE PERFORMANCE DESCRIPTION

(Dimensions, Responsibilities, and Tasks)

	Assigned	Discussed	Demonstrated	Performed
A. SELECTING DRUG PRODUCTS AND INGREDIENTS				
I. Establishes drug quality specifications for drugs to be purchased	( )	( )	( )	( )
a) Determines if the drug has potential for inequivalence	( )	( )	( )	( )
(1) Consults reference(s) which rate potential inequivalence (e.g., FDA information)	( )	( )	( )	( )
(2) Determines if drug has low water solubility	( )	( )	( )	( )
(3) Determines if usual conditions being treated need high or critical serum levels	( )	( )	( )	( )
(4) Determines if drug has narrow therapeutic index	( )	( )	( )	( )
(5) Determines if special formulation is needed for delayed absorption	( )	( )	( )	( )
(6) Assesses bioavailability data, if available	( )	( )	( )	( )
II. Selects the manufacturing sources of drug product(s)	( )	( )	( )	( )
a) Determines manufacturing sources	( )	( )	( )	( )
b) Determines manufacturer reliability	( )	( )	( )	( )
(1) Assesses quality control data	( )	( )	( )	( )
(2) Reviews recall records	( )	( )	( )	( )
(3) Inspects products for defects	( )	( )	( )	( )
(4) Develops quality specifications for evaluating differences in formulation among products (e.g., taste, ointment/ cream base)	( )	( )	( )	( )
B. COMPOUNDING PRESCRIPTIONS				
I. Interprets and evaluates prescription order for physical and chemical compatibility	( )	( )	( )	( )
a) Verifies that quantity of vehicle (diluent, IV fluid) is appropriate to the drug(s)	( )	( )	( )	( )
(1) Confirms that drug(s) is soluble in ordered quantity of vehicle	( )	( )	( )	( )
(2) Confirms that drug(s) is stable in ordered quantity of vehicle	( )	( )	( )	( )

		Assigned	Discussed	Demonstrated	Performed
b)	Verifies that concentration of vehicle is appropriate to the drug(s)	( )	( )	( )	( )
(1)	Confirms that drug(s) is soluble in ordered quantity of vehicle	( )	( )	( )	( )
(2)	Confirms that drug(s) is stable in ordered quantity of vehicle	( )	( )	( )	( )
c)	Verifies that type of vehicle is appropriate to the drug(s)	( )	( )	( )	( )
(1)	Confirms that pH of vehicle is compatible with drug(s)	( )	( )	( )	( )
(2)	Confirms that drug(s) is soluble/ miscible in ordered type of vehicle	( )	( )	( )	( )
(3)	Confirms that drug(s) is stable in ordered type of vehicle	( )	( )	( )	( )
d)	Verifies that order contains no drug-drug incompatibilities	( )	( )	( )	( )
(1)	Checks that pHs of drugs are compatible	( )	( )	( )	( )
(2)	Checks that mixture will not precipitate or chelate	( )	( )	( )	( )
(3)	Checks that drug(s) will not inactivate each other	( )	( )	( )	( )
e)	Verifies that preservative is not incompatible with order (See Sections B-II, B-III)	( )	( )	( )	( )
II.	Extemporaneously compounds the prescribed ingredients according to prescription formulary or instructions	( )	( )	( )	( )
	Nonsterile preparations				
a)	Selects appropriate equipment and environment	( )	( )	( )	( )
b)	Cleans equipment and preparation area before and after compounding	( )	( )	( )	( )
c)	Selects appropriate ingredient(s)	( )	( )	( )	( )
d)	Checks condition of ingredient(s)	( )	( )	( )	( )
e)	Calculates amount of ingredient(s)	( )	( )	( )	( )
f)	Measures or weighs ingredient(s)	( )	( )	( )	( )
g)	Combines ingredients in proper sequence	( )	( )	( )	( )
h)	Performs the steps necessary to produce a pharmaceutically elegant product	( )	( )	( )	( )
i)	Annotates on prescription order all necessary information (e.g., calculations made, adjuvants used)	( )	( )	( )	( )

		Assigned	Discussed	Demonstrated	Performed
j)	Selects appropriate container and transfers product (See Section B-I)	( )	( )	( )	( )
k)	Reconstitutes lyophilyzed or powdered pharmaceuticals into a dosage form suitable for administration	( )	( )	( )	( )
	Sterile preparations				
a)	Establishes and maintains policies for preparation of sterile preparations	( )	( )	( )	( )
b)	Interprets and evaluates order (See Section B-I)	( )	( )	( )	( )
c)	Selects appropriate formula	( )	( )	( )	( )
d)	Selects and prepares appropriate equipment and environment—uses aseptic technique	( )	( )	( )	( )
e)	Selects proper solution and additive ingredients	( )	( )	( )	( )
f)	Checks condition and stability of ingredients and containers	( )	( )	( )	( )
g)	Checks for compatibilities and stabilities	( )	( )	( )	( )
h)	Calculates amount of ingredient(s)	( )	( )	( )	( )
i)	Prepares, dilutes, transfers and combines ingredient(s)	( )	( )	( )	( )
j)	Inspects product	( )	( )	( )	( )
k)	Prepares, selects and affixes label(s)	( )	( )	( )	( )
l)	Calculates, checks dose and 24 hour volume	( )	( )	( )	( )
m)	Checks compounding process	( )	( )	( )	( )
n)	Documents quality control procedures (See Section B-IV)	( )	( )	( )	( )
o)	Stores preparation appropriately (See Section L-XV, L-XVI, page 55)	( )	( )	( )	( )
III.	Performs bulk compound packaging and pre-packaging of nonsterile and sterile dosage forms	( )	( )	( )	( )
a)	Prepares nonsterile formulations	( )	( )	( )	( )
	(1) Selects appropriate formula	( )	( )	( )	( )
	(2) Selects appropriate equipment and environment	( )	( )	( )	( )
	(3) Cleans and maintains equipment before and after use	( )	( )	( )	( )
	(4) Selects appropriate ingredients, containers and labels	( )	( )	( )	( )
	(5) Checks stability, compatibility and condition of ingredients and containers	( )	( )	( )	( )
	(6) Calculates amount of ingredient(s)	( )	( )	( )	( )

		Assigned	Discussed	Demonstrated	Performed
(7)	Measures, dilutes or weighs ingredients	( )	( )	( )	( )
(8)	Mixes or processes ingredients in proper sequence	( )	( )	( )	( )
(9)	Packages and labels product	( )	( )	( )	( )
(10)	Documents quality control procedures (See Section B-IV)	( )	( )	( )	( )
b)	Prepares sterile formulations	( )	( )	( )	( )
(1)	Establishes and maintains policies for preparation of bulk-compounded sterile preparations	( )	( )	( )	( )
(2)	Selects appropriate formula	( )	( )	( )	( )
(3)	Selects and prepares appropriate equipment and environment—uses aseptic technique	( )	( )	( )	( )
(4)	Selects proper ingredients	( )	( )	( )	( )
(5)	Checks condition and stability of ingredients and containers	( )	( )	( )	( )
(6)	Checks for compatibilities and stabilities	( )	( )	( )	( )
(7)	Calculates amount of ingredient(s)	( )	( )	( )	( )
(8)	Prepares, dilutes, transfers and combines ingredients	( )	( )	( )	( )
(9)	Inspects product	( )	( )	( )	( )
(10)	Selects, prepares and affixes label(s)	( )	( )	( )	( )
(11)	Checks compounding process	( )	( )	( )	( )
(12)	Documents quality control procedures (See Section B-IV)	( )	( )	( )	( )
(13)	Stores preparation appropriately (See Section L-XV, L-XVI, page 55)	( )	( )	( )	( )
c)	Prepackages drugs	( )	( )	( )	( )
(1)	Establishes and maintains policies for prepackaging	( )	( )	( )	( )
(2)	Maintains and refers to appropriate control record(s)	( )	( )	( )	( )
(3)	Selects appropriate drug, container, packaging materials or labels	( )	( )	( )	( )
(4)	Checks properties and condition of container and packaging material	( )	( )	( )	( )
(5)	Transfers and packages drug	( )	( )	( )	( )
(6)	Labels product	( )	( )	( )	( )
(7)	Follows special procedures in prepackaging, including unit dose packaging, where appropriate	( )	( )	( )	( )
(8)	Documents quality control procedures (See Section B-IV)	( )	( )	( )	( )

	Assigned	Discussed	Demonstrated	Performed
IV. Develops, maintains and applies quality control procedures and records for drugs that are pre-packaged, bulk-compounded, sterile-product formulated, etc. (See Sections B-II, B-III)	( )	( )	( )	( )
C. DISPENSING PRESCRIPTIONS				
I. Receives order and determines priority of handling	( )	( )	( )	( )
II. Interprets and evaluates prescription order for completeness and legality	( )	( )	( )	( )
a) Checks prescription order to verify that it can be legally dispensed, checking the following items:	( )	( )	( )	( )
(1) The prescriber is identified	( )	( )	( )	( )
(2) The order is issued by a person authorized to prescribe	( )	( )	( )	( )
(3) The prescriber is licensed/authorized to prescribe by the appropriate agency	( )	( )	( )	( )
(4) The prescriber has ordered medication that is within his/her scope of practice	( )	( )	( )	( )
(5) The prescription is not forged or fraudulent	( )	( )	( )	( )
(6) The date of the prescription order is within legal limits	( )	( )	( )	( )
(7) The other legal requirements of the prescription have been met (e.g., name, address)	( )	( )	( )	( )
b) Checks for completeness of prescription order to see that the following are legibly included on the prescription:	( )	( )	( )	( )
(1) Name of medication	( )	( )	( )	( )
(2) Number of dosage units to be dispensed	( )	( )	( )	( )
(3) Dosage form and strength	( )	( )	( )	( )
(4) Complete directions that facilitate rational drug usage	( )	( )	( )	( )
(5) The item described is allowable under formulary, where applicable	( )	( )	( )	( )
(6) Route of administration delineated	( )	( )	( )	( )
(7) Third party payer identification number, when appropriate, (See Section L-IV, page 51)	( )	( )	( )	( )

		Assigned	Discussed	Demonstrated	Performed
c)	Obtains additional information necessary to make prescription order complete and legal	( )	( )	( )	( )
(1)	Interviews patient for additional information	( )	( )	( )	( )
(2)	Calls prescriber to obtain necessary information	( )	( )	( )	( )
(3)	Calls appropriate person(s) and/or agency to obtain additional information	( )	( )	( )	( )
III.	Interprets and evaluates prescription order for amount per dose, appropriate route, frequency, and duration of therapy	( )	( )	( )	( )
a)	Evaluates the dose:	( )	( )	( )	( )
(1)	as falling within therapeutic ranges	( )	( )	( )	( )
(2)	as being safe and nontoxic	( )	( )	( )	( )
(3)	as being practical to measure and administer	( )	( )	( )	( )
(4)	as being available	( )	( )	( )	( )
b)	Evaluates route of administration	( )	( )	( )	( )
(1)	Verifies dose as falling within therapeutic ranges	( )	( )	( )	( )
(2)	Determines route is appropriate for drug	( )	( )	( )	( )
(3)	Determines route is appropriate for patient	( )	( )	( )	( )
(4)	Determines the dose as being safe	( )	( )	( )	( )
(5)	Determines that dose is practical to measure and administer	( )	( )	( )	( )
(6)	Determines availability of dosage	( )	( )	( )	( )
c)	Evaluates the frequency of administration for:				
(1)	Safety and effectiveness of total daily dose	( )	( )	( )	( )
(2)	Consistency with dose and route of administration	( )	( )	( )	( )
(3)	Appropriateness for disease being treated	( )	( )	( )	( )
(4)	Consistency with the drug dosage form characteristics	( )	( )	( )	( )
d)	Evaluates the duration of therapy for inappropriateness	( )	( )	( )	( )
e)	Consults with prescriber to provide suggestion for alteration of order	( )	( )	( )	( )

	Assigned	Discussed	Demonstrated	Performed
IV. Evaluates application of drug product selection for brand name prescription orders in those cases where legally authorized	( )	( )	( )	( )
a) Determines feasibility and appropriateness of drug product selection	( )	( )	( )	( )
b) Determines if patient has taken specific brand of drug before	( )	( )	( )	( )
(1) Refers to patient record (See Section D-I-III, pages 37-38)	( )	( )	( )	( )
(2) Communicates with patient or practitioner (See Section G-I, pages 44-45)	( )	( )	( )	( )
c) Determines cost differential for different sources	( )	( )	( )	( )
d) Determines if there is a significant difference in formulation between products (i.e., taste, ointment/cream base, etc.)	( )	( )	( )	( )
(1) Ascertains whether patient/condition needs certain formulation	( )	( )	( )	( )
e) Determines if patient is allergic to nondrug components of product	( )	( )	( )	( )
(1) Selects brand which is allergen free	( )	( )	( )	( )
f) Inspects product for defects	( )	( )	( )	( )
g) Determines manufacturing source(s)	( )	( )	( )	( )
h) Communicates change or choice of brand to patient/practitioner if legally or ethically indicated	( )	( )	( )	( )
i) Makes notation on prescription order indicating specific drug product and manufacturer selected	( )	( )	( )	( )
V. Selects the manufacturing source of drug(s) to be dispensed for a prescription order written in generic terminology	( )	( )	( )	( )
a) Determines if patient has taken specific brand of drug before	( )	( )	( )	( )
(1) Refers to patient record	( )	( )	( )	( )
(2) Communicates with patient or practitioner (See Sections D-I-III, G-I, pages 37-38, 44-45)	( )	( )	( )	( )

	Assigned	Discussed	Demonstrated	Performed
b) Determines cost differential for different sources	( )	( )	( )	( )
c) Determines if there is a significant difference in formulation between products (i.e., taste, color, ointment/cream base, etc.)	( )	( )	( )	( )
(1) Ascertains whether patient/condition needs certain formulation	( )	( )	( )	( )
d) Determines if patient is allergic to nondrug components of product	( )	( )	( )	( )
(1) Selects brand which is allergen free	( )	( )	( )	( )
e) Inspects product for defects	( )	( )	( )	( )
f) Determines manufacturing source(s)	( )	( )	( )	( )
g) Communicates change or choice of brand to patient/practitioner if legally or ethically indicated	( )	( )	( )	( )
h) Makes notation on prescription order indicating specific drug product and manufacturer selected	( )	( )	( )	( )
VI. Selects drug product in cases where brand selection is <u>not</u> legally authorized	( )	( )	( )	( )
a) Obtains consent of prescriber for brand exchange when appropriate	( )	( )	( )	( )
b) Inspects product for defects	( )	( )	( )	( )
VII. Measures or counts quantities needed to dispense the prescription	( )	( )	( )	( )
a) Selects and cleans appropriate equipment	( )	( )	( )	( )
b) Observes usual precautions for proper drug handling	( )	( )	( )	( )
c) Selects prepackaged unit-of-use item	( )	( )	( )	( )
(1) Removes nonpatient oriented labels and inserted materials	( )	( )	( )	( )
(2) Checks for completeness of product (e.g., inserter with vaginal products)	( )	( )	( )	( )
(3) Checks quantities in prepared sizes	( )	( )	( )	( )

		Assigned	Discussed	Demonstrated	Performed
VIII.	Performs packaging and labeling functions to promote product stability	( )	( )	( )	( )
	a) Selects appropriate package for medication	( )	( )	( )	( )
	(1) Package will be of appropriate size and appearance	( )	( )	( )	( )
	(2) Package meets storage requirements	( )	( )	( )	( )
	(3) Package meets legal requirements	( )	( )	( )	( )
	(4) Package meets patient convenience and utilization requirements	( )	( )	( )	( )
	b) Transfers measured number of dosage units to prescription container	( )	( )	( )	( )
	c) Closes/seals prescription container(s)	( )	( )	( )	( )
	d) Selects proper storage labeling	( )	( )	( )	( )
	e) Makes notation on prescription order if child resistant container was not dispensed	( )	( )	( )	( )
IX.	Selects, prepares and affixes appropriate labeling for prescription container and includes patient instructions	( )	( )	( )	( )
	a) Prepares primary label to include:				
	(1) All legal requirements	( )	( )	( )	( )
	(2) Clear, concise and comprehensive instructions to patient	( )	( )	( )	( )
	(3) Legible and professional appearance	( )	( )	( )	( )
	(4) Expiration date, when applicable	( )	( )	( )	( )
	b) Chooses appropriate auxiliary labels reinforcing or supplementing instructions on primary label	( )	( )	( )	( )
	c) Affixes appropriate label(s) to container	( )	( )	( )	( )
	d) Makes notations on prescription order to ensure consistent future processing	( )	( )	( )	( )
	(1) Notes labeling instructions used	( )	( )	( )	( )
	(2) Notes size and type of container used	( )	( )	( )	( )
X.	Performs a final check of the finished prescription to ensure that each of the steps have been accomplished accurately	( )	( )	( )	( )
	a) Checks prescription label for accuracy against prescription order	( )	( )	( )	( )

	Assigned	Discussed	Demonstrated	Performed
(1) Verifies patient name is correct	( )	( )	( )	( )
(2) Verifies directions are correct	( )	( )	( )	( )
(3) Verifies medication, strength, and dosage form is correct	( )	( )	( )	( )
(4) Verifies expiration date of medication	( )	( )	( )	( )
(5) Verifies dispensing date	( )	( )	( )	( )
(6) Verifies prescriber	( )	( )	( )	( )
(7) Verifies prescription number	( )	( )	( )	( )
(8) Initials prescription label if necessary	( )	( )	( )	( )
b) Checks medication for accuracy against prescription order	( )	( )	( )	( )
(1) Verifies correct medication	( )	( )	( )	( )
(2) Verifies correct dosage form	( )	( )	( )	( )
(3) Verifies correct strength	( )	( )	( )	( )
(4) Verifies correct manufacturer	( )	( )	( )	( )
(5) Verifies correct quantity dispensed	( )	( )	( )	( )
c) Returns bulk container to storage area	( )	( )	( )	( )
d) Checks auxiliary label instructions	( )	( )	( )	( )
(1) Reviews special storage requirements	( )	( )	( )	( )
(2) Reviews special administration requirements	( )	( )	( )	( )
(3) Reviews special preparation requirements	( )	( )	( )	( )
e) Checks authenticity, legality of prescription	( )	( )	( )	( )
f) Determines price of prescription	( )	( )	( )	( )
XI. Certifies correctness of prescription by initialing and/or signing prescription*	( )	( )	( )	( )
XII. Dispenses prescription refills	( )	( )	( )	( )
a) Develops policies for refills, emergency refills and "P.R.N." refills	( )	( )	( )	( )
b) Determines refill eligibility	( )	( )	( )	( )
c) Requests refill authorization, when necessary	( )	( )	( )	( )
d) Checks for over- or under-utilization	( )	( )	( )	( )

*Check state law for legal requirements which may restrict this task to pharmacists.

	Assigned	Discussed	Demonstrated	Performed
e) Assesses refill emergencies and uses professional judgement	( )	( )	( )	( )
f) Maintains appropriate refill records (See Sections B-I, p.27; B-II, pp.28-29, C-II-XI, pp.31-36 I, p.46)				
XIII. Receives, processes and issues information copies	( )	( )	( )	( )
D. MONITORING AND EVALUATING THERAPY				
I. Interviews the patient or his/her agent to obtain information for entry into patient record, patient profile, or family health record	( )	( )	( )	( )
a) Identifies patient or agent	( )	( )	( )	( )
b) Uses effective communication techniques in accomplishing the following:	( )	( )	( )	( )
(1) Obtains history of prior and present medical problem(s)	( )	( )	( )	( )
(2) Obtains history of drug usage (including over-the-counter drugs and prescriptions)	( )	( )	( )	( )
(3) Obtains history of patient compliance with drug regimens	( )	( )	( )	( )
(4) Obtains history of drug allergies or sensitivities, i.e., date, route of administration, type of reaction	( )	( )	( )	( )
(5) Verifies patient health information where possible	( )	( )	( )	( )
(6) Obtains information about dietary restrictions	( )	( )	( )	( )
II. Updates the history in the patient's record from information obtained by recurring interviews	( )	( )	( )	( )
III. Checks patient record for pertinent information before dispensing prescription medication	( )	( )	( )	( )
a) Verifies that records pertain to the correct patient	( )	( )	( )	( )
b) Checks prescription order against patient drug sensitivities/allergies	( )	( )	( )	( )
c) Checks appropriateness of prescription order with current patient diagnosis	( )	( )	( )	( )

	Assigned	Discussed	Demonstrated	Performed
d) Checks prescription order against patient profile data for presence of inappropriate drug use, including:	( )	( )	( )	( )
(1) Drug-drug interaction	( )	( )	( )	( )
(2) Drug-diet interaction	( )	( )	( )	( )
(3) Drug-lab interaction	( )	( )	( )	( )
(4) Drug-disease interaction	( )	( )	( )	( )
(5) Inappropriate concurrent prescribing	( )	( )	( )	( )
(6) Inappropriate regimen for intended use	( )	( )	( )	( )
(7) Over- or under-utilization	( )	( )	( )	( )
(8) Dosing frequency and amount	( )	( )	( )	( )
(9) Multiple prescribers	( )	( )	( )	( )
e) Checks patient data to determine if any of the following factors will affect response to drug:	( )	( )	( )	( )
(1) Weight	( )	( )	( )	( )
(2) Age	( )	( )	( )	( )
(3) Race	( )	( )	( )	( )
(4) Sex	( )	( )	( )	( )
(5) Occupation	( )	( )	( )	( )
(6) Prior and present medical problem(s)	( )	( )	( )	( )
(7) Laboratory values	( )	( )	( )	( )
(8) Other medications (including over-the-counter drugs)	( )	( )	( )	( )
(9) Diet	( )	( )	( )	( )
(10) Use of alcohol, tobacco, etc.	( )	( )	( )	( )
(11) Compliance with drug regimen	( )	( )	( )	( )
(12) Physical examination results	( )	( )	( )	( )
(13) Socioeconomic factors	( )	( )	( )	( )
IV. Receives and/or seeks additional drug-related information (e.g., cost, pharmacokinetic characteristics, bioavailability, common adverse effects) to identify potential problems regarding drug therapy	( )	( )	( )	( )
a) Determines what type of information is needed, if any	( )	( )	( )	( )
b) Collects subjective and objective data to further clarify the situation	( )	( )	( )	( )
c) Retrieves and reviews information from appropriate sources	( )	( )	( )	( )
d) Evaluates information obtained	( )	( )	( )	( )

	Assigned	Discussed	Demonstrated	Performed
V. Monitors patient records for indications of drug abuse or misuse	( )	( )	( )	( )
VI. Using data obtained during monitoring, integrates drug-related with patient-related information in order to determine appropriate course of action (e.g., timing of dosage schedule, advising patient of possible adverse effects)	( )	( )	( )	( )
a) Identifies potential drug-related problems	( )	( )	( )	( )
b) Assesses and documents the significance of the potential problems	( )	( )	( )	( )
c) Determines alternatives to resolution of the problem(s)	( )	( )	( )	( )
d) Resolves the problems (See Section G-I, p. 44)	( )	( )	( )	( )
VII. Continuously evaluates and monitors therapeutic response of patient to prescribed medication	( )	( )	( )	( )
E. COMMUNICATING WITH PATIENTS ABOUT LEGEND DRUGS				
I. Makes recommendations to the patient regarding drug therapy	( )	( )	( )	( )
a) Assesses patient's (or agent's) present knowledge of disease state and drug	( )	( )	( )	( )
b) Determines information to be presented to the patient	( )	( )	( )	( )
c) Focuses recommendations appropriately at level of patient's (or agent's) understanding	( )	( )	( )	( )
d) Advises patient (or agent) concerning appropriate drug use	( )	( )	( )	( )
(1) Mentions name of drug	( )	( )	( )	( )
(2) Explains reason for taking medication	( )	( )	( )	( )
(3) Explains prescriber's dosage instructions: —Frequency and time of administration —Quantity —Duration of regimen	( )	( )	( )	( )

		Assigned	Discussed	Demonstrated	Performed
(4)	Explains limitations controlling quantity of prescription and quantity and frequency of refills: —Explains whether prescription is refillable —Explains number of refills authorized —Explains reasons for refill limitations, procedure and time required —Explains partial filling —Explains third-party restrictions on prescription quantity	( )	( )	( )	( )
(5)	Explains route of administration	( )	( )	( )	( )
(6)	Provides special administration instructions where indicated	( )	( )	( )	( )
(7)	Stresses importance of adhering to dosage regimen	( )	( )	( )	( )
e)	Advises patient (or agent) concerning packaging	( )	( )	( )	( )
(1)	Explains purpose of special packaging	( )	( )	( )	( )
(2)	Demonstrates how to remove medication from the package (e.g., safety closure)	( )	( )	( )	( )
(3)	Demonstrates special devices used for administration	( )	( )	( )	( )
f)	Advises patient (or agent) concerning appropriate drug storage	( )	( )	( )	( )
(1)	Explains special storage requirements	( )	( )	( )	( )
(2)	Explains stability characteristics	( )	( )	( )	( )
(3)	Emphasizes expiration dates	( )	( )	( )	( )
g)	Counsels patient (or agent) concerning drugs and food to avoid while taking the medication	( )	( )	( )	( )
h)	Counsels patient (or agent) regarding any occupational precautions (i.e., drowsiness with use of antihistamines)	( )	( )	( )	( )
i)	Advises patient (or agent) of potential drug or health related conditions which may develop from the use of medication for which patient should seek other medical care	( )	( )	( )	( )
(1)	Assesses benefit vs. risk of explaining side effect and/or expected response	( )	( )	( )	( )
(2)	Explains possible effects of drug use to patient (or agent)	( )	( )	( )	( )

	Assigned	Discussed	Demonstrated	Performed
i—Explains how to recognize the signs and symptoms that indicate:	( )	( )	( )	( )
—Therapeutic response				
—Therapeutic failure				
—Pertinent side effects	( )	( )	( )	( )
ii—Advises what to do if signs and/or symptoms occur	( )	( )	( )	( )
iii—Advises how to minimize side effects	( )	( )	( )	( )
(3) Notifies practitioner of pharmacist/patient consultation if indicated (See Section G-I, p. 44)	( )	( )	( )	( )
j) Counsel patient (or agent) regarding any change in therapy (drug, directions, brand dispensed)	( )	( )	( )	( )
k) Provides auxiliary information sources (e.g., patient product information, brochures)	( )	( )	( )	( )
l) Questions patient (or agent) to obtain feedback concerning understanding of recommendations	( )	( )	( )	( )
II. Answers patient's questions about legend drugs and medication history				
a) Considers diagnosis, when known	( )	( )	( )	( )
b) Considers patient and drug-related factors before responding	( )	( )	( )	( )
c) Responds tactfully	( )	( )	( )	( )
d) Upon request, reviews and interprets medication history to the patient	( )	( )	( )	( )
III. Advises patients in personal health matters (e.g., smoking, drug abuse), and in public health matters (e.g., cancer, diabetes, heart disease, V.D., etc.) (See Section K-III, page 48)	( )	( )	( )	( )
F. COMMUNICATING WITH PATIENTS ON SELECTION OF OVER-THE-COUNTER DRUGS AND MEDICAL/SURGICAL SUPPLIES				
I. Consults with patient to properly identify symptoms in order to advise patient for self-medication	( )	( )	( )	( )

OTC DRUGS *

		Assigned	Discussed	Demonstrated	Performed
a)	Uses effective communication techniques in identifying major symptoms of patient:	( )	( )	( )	( )
	(1) Onset of symptom	( )	( )	( )	( )
	(2) Duration of symptom	( )	( )	( )	( )
	(3) Severity of symptom	( )	( )	( )	( )
	(4) Description of symptom	( )	( )	( )	( )
	(5) Location of symptom	( )	( )	( )	( )
	(6) Other associated symptoms	( )	( )	( )	( )
	(7) Relief of symptom	( )	( )	( )	( )
	(8) Self-treatment, history	( )	( )	( )	( )
b)	Obtains information on other medical problems, drug therapy (including over-the-counter drugs), drug allergies, and sensitivities	( )	( )	( )	( )
	(1) Through patient interview	( )	( )	( )	( )
	(2) Through patient record	( )	( )	( )	( )
c)	Observes patient when feasible or obtains information from patient's agent	( )	( )	( )	( )
d)	Performs physical assessment (e.g., inspection of wound)	( )	( )	( )	( )
e)	Makes professional judgement as to patient's condition and need for referral (See Section F-III)	( )	( )	( )	( )
f)	Recommends a product, no treatment, or other treatment, or refers to appropriate health care professional (See Section F-III)	( )	( )	( )	( )
g)	Educates patient as to proper use of medications, dosage and precautions, etc. (See Section E-I, p. 39)	( )	( )	( )	( )
h)	Arranges for follow-up on patient's response to over-the-counter drugs	( )	( )	( )	( )
i)	Questions patient (or agent) to obtain feedback concerning understanding of recommendations	( )	( )	( )	( )
j)	Answers patient's (or agent's) questions	( )	( )	( )	( )
k)	Makes appropriate entry into patient's record (See Sections D-I, II, p. 37)	( )	( )	( )	( )

*The scope of drugs in this category includes:

Acne products
Antacid products
Anthelminitic products
Antidiarrheal and other gastrointestinal products
Asthma products
Burn and sunburn products
Cold and allergy products
Contact lens products
Contraceptive methods and products
Dental products
Diaper rash and prickly heat products
Dry skin, dandruff, seborrhea, psoriasis, and eczema products
Emetic and antiemetic products
External analgesic products
Foot care products
Hemorrhoidal products
Infant formula products
Insect sting and bite products
Internal analgesic products
Laxative products
Menstrual products
Nutritional supplement, mineral, and vitamin products
Ophthalmic products
Ostomy care products
Otic products
Poison ivy and poison oak products
Sleep aid and sedative products
Stimulant products
Sunscreen and suntan products
Topical anti-infective products
Weight control products

		Assigned	Discussed	Demonstrated	Performed
II.	Instructs patient (or agent) in the use of medical and surgical devices and supplies	( )	( )	( )	( )
	MEDICAL-SURGICAL DEVICES AND SUPPLIES*				
a)	Assesses patient's (or agent's) present knowledge of disease state and device	( )	( )	( )	( )
b)	Determines information to be presented to the patient	( )	( )	( )	( )
c)	Focuses recommendations appropriately at level of patient's (or agent's) understanding	( )	( )	( )	( )
d)	Identifies device(s) or supplies requested or indicated	( )	( )	( )	( )
e)	Recommends or selects appropriate product	( )	( )	( )	( )
f)	Identifies or selects proper sizes, types	( )	( )	( )	( )
g)	Fits and adjusts medical-surgical devices and appliances	( )	( )	( )	( )
h)	Provides product information: —explains proper usage —explains proper cleaning, maintenance or storage —provides appropriate cautions	( )	( )	( )	( )

	Assigned	Discussed	Demonstrated	Performed
i) Recognizes conditions requiring referral to other health professionals	( )	( )	( )	( )
j) Answers patient's questions	( )	( )	( )	( )
k) Questions patient (or agent) to obtain feedback concerning understanding of recommendations	( )	( )	( )	( )

*The scope of devices in this category includes:

Adhesive bandages
Adhesive tape
Athletic supports
Baby and infant supplies
Bandages, dressings
Braces
Catheters
Contraceptive devices
Elastic bandages
Feminine supplies
Foot care supplies
Heat lamps
Hot water bottles, ice packs
Humidifiers
Hypodermic syringes, needles
I.D. bracelets
Irrigation equipment
Nebulizers, atomizers
Orthopedic aids (canes, crutches)
Sickroom supplies (urinals, bedpans)
Sun lamps
Suspensories
Thermometers
Trusses
Vaporizers
Walkers
Wheelchairs

III.	Refers patient to other health care providers and/or health resources where indicated	( )	( )	( )	( )
a)	Determines need for referral	( )	( )	( )	( )
b)	Recommends appropriate professional/agency for referral based on needs and severity	( )	( )	( )	( )
c)	Selects most appropriate method to facilitate meeting of patient's needs	( )	( )	( )	( )
d)	Follows up on adherence to recommendations	( )	( )	( )	( )

G. COMMUNICATING WITH HEALTH CARE PROFESSIONALS

I.	Makes recommendations regarding drug therapy to the physician, or other persons involved with the patient's care	( )	( )	( )	( )
a)	Requests clarification in cases of possible therapeutic problems, or errors of omission or commission	( )	( )	( )	( )

		Assigned	Discussed	Demonstrated	Performed
b)	Communicates therapeutic recommendation(s) to the prescriber (See Section D-VI, p. 39)	( )	( )	( )	( )
c)	Questions prescriber in cases where clinically significant drug interactions or contraindications exist	( )	( )	( )	( )
d)	Consults with prescriber in cases of drug under- or over-utilization by patient	( )	( )	( )	( )
e)	Provides drug information: —composition —dose —use —classification —nomenclature —administration techniques —special formulations	( )	( )	( )	( )
f)	Answers questions from physicians and other health professionals (See Section H,p.46)	( )	( )	( )	( )
II.	Consults with prescribers and other health professionals about drug distribution policies and procedures	( )	( )	( )	( )
a)	Provides information on drug distribution policy and procedures	( )	( )	( )	( )
b)	Provides information on availability of drug —in pharmacy stock —on market	( )	( )	( )	( )
c)	Questions prescriber in cases where prescription is technically or legally incorrect	( )	( )	( )	( )
III.	Upon request, reviews and interprets medication history to the physician, or other person involved with patient's care	( )	( )	( )	( )
IV.	Provides drug information to other health care professionals in a formal setting	( )	( )	( )	( )
a)	Assesses informational needs	( )	( )	( )	( )
b)	Provides in-service programs, lectures, seminars, exhibits	( )	( )	( )	( )

	Assigned	Discussed	Demonstrated	Performed
c) Prepares and distributes bulletins, newsletters	( )	( )	( )	( )
d) Disseminates information through office visits	( )	( )	( )	( )
H. MAINTAINING DRUG INFORMATION				
I. Selects, evaluates, organizes, maintains, and utilizes a current library of drug information	( )	( )	( )	( )
a) Identifies any special areas of need based on legal requirements and practice setting	( )	( )	( )	( )
b) Identifies sources available (e.g., textbooks, journals, subscription services, retrieval systems, phone numbers of drug information/poison centers) and evaluates materials for completeness, reliability, currency, ease of use, etc.	( )	( )	( )	( )
c) Obtains and organizes sources and places in a convenient location	( )	( )	( )	( )
d) Locates information sources	( )	( )	( )	( )
e) Retrieves information	( )	( )	( )	( )
f) Periodically updates materials	( )	( )	( )	( )
II. Participates in "in pharmacy" and other continuing education programs for pharmacists	( )	( )	( )	( )
a) Assesses own learning needs	( )	( )	( )	( )
b) Sets educational goals to meet needs	( )	( )	( )	( )
c) Identifies and participates in meaningful educational experiences	( )	( )	( )	( )
d) Evaluates learning and reassesses needs	( )	( )	( )	( )
I. MAINTAINING PROFESSIONAL AND ETHICAL STANDARDS				
I. Complies with legal and professional standards relating to practice and to operation of the pharmacy	( )	( )	( )	( )
a) Identifies and maintains copies of standards:	( )	( )	( )	( )
—Statutory and regulatory (local, state and federal)*				
—Voluntary standards (e.g.,JCAH standards)				
—Codes of ethics				

*State Pharmacy Practice Act and Regulations; Federal Food, Drug, and Cosmetic Act; Federal Controlled Substances Act; State Drug Act; State Controlled Substances Act

		Assigned	Discussed	Demonstrated	Performed
b)	Identifies and complies with unwritten contemporary standards of practice	( )	( )	( )	( )
c)	Reviews all standards on a periodic basis	( )	( )	( )	( )
d)	Seeks interpretation and clarification when necessary	( )	( )	( )	( )
e)	Corrects deficiencies in standards	( )	( )	( )	( )
f)	Complies with the standards	( )	( )	( )	( )
g)	Uses professional judgement when interpreting the standards in the patient's interest	( )	( )	( )	( )
h)	By observation, verifies that colleagues and other personnel in the pharmacy are performing their responsibilities in compliance with the standards	( )	( )	( )	( )
i)	Reports incidents of noncompliance	( )	( )	( )	( )
j)	Participates in standard-setting activities (e.g., advisory committees, lobbying activities, professional association membership and participation	( )	( )	( )	( )

J. PROVIDING EMERGENCY PHARMACY SERVICES

I.	Provides information and/or referral in emergency cases involving ingestion of toxic substances	( )	( )	( )	( )
a)	Maintains information system for dealing with emergency situation (e.g., poison control center, antidote chart, references)	( )	( )	( )	( )
b)	Obtains information to further define the ingestion situation	( )	( )	( )	( )
c)	Evaluates information and recommends treatment or referral	( )	( )	( )	( )
II.	Participates in emergency patient care activities	( )	( )	( )	( )
a)	Actively participates in certain emergency situations (e.g., CPR team, emergency prescription service)	( )	( )	( )	( )

	Assigned	Discussed	Demonstrated	Performed
b) Supports services for emergency activities (e.g., provides supplies for rescue squad and civil defense planning)	( )	( )	( )	( )
K. GENERAL PUBLIC HEALTH AND CIVIC RESPONSIBILITIES				
I. Serves as a member of governmental health boards (e.g., mental health boards, Health Systems Agencies)	( )	( )	( )	( )
II. Publicizes and/or participates in mass screening programs (e.g., hypertension, diabetes, TB, VD)	( )	( )	( )	( )
a) Determines the need for pharmacist participation in mass screening programs	( )	( )	( )	( )
b) Determines pharmacist's degree of participation in the program	( )	( )	( )	( )
c) Participates in the organization, promotion, and operation of mass screening programs (e.g., publicity, mechanics of program, materials, equipment)	( )	( )	( )	( )
III. Participates in appropriate community educational programs relating to health care and drugs (e.g., drug abuse, alcohol, hypertension)	( )	( )	( )	( )
a) Maintains availability for community educational programs	( )	( )	( )	( )
b) Defines and promotes pharmacist's role in health care	( )	( )	( )	( )
c) Defines areas of participation	( )	( )	( )	( )
IV. Participates in utilization reviews, medical audits, and medical care evaluations (e.g., as a member of medical care evaluation committee or in peer review)	( )	( )	( )	( )
a) Promotes pharmacy representation in quality assurance activities	( )	( )	( )	( )
b) Participates in development of criteria and standards	( )	( )	( )	( )
c) Participates in collection and evaluation of data	( )	( )	( )	( )
d) Participates in initiating measures to improve the quality of patient care	( )	( )	( )	( )

	Assigned	Discussed	Demonstrated	Performed
V. Assists in establishing, performing, tabulating and evaluating clinical studies regarding drugs	( )	( )	( )	( )
a) Participates in the design and/or conduct of studies	( )	( )	( )	( )
(1) Identifies questions to be studied or problems to be solved within various practice settings (e.g., community, academic, institutional)	( )	( )	( )	( )
(2) Conducts studies recognizing the limitations of practice settings	( )	( )	( )	( )
(3) Disseminates findings	( )	( )	( )	( )
L. MANAGING PHARMACY OPERATIONS*				
I. Establishes and/or implements written policies and procedures for pharmacy operations	( )	( )	( )	( )
a) Identifies each specific pharmaceutical function performed	( )	( )	( )	( )
b) Within each functional area develops specific policies and procedures consistent with legal, institutional, and/or professional guidelines	( )	( )	( )	( )
c) Organizes policies and procedures to allow a quick and logical method for reference	( )	( )	( )	( )
d) Subjects policies and procedures to appropriate review process	( )	( )	( )	( )
e) Generates and distributes policies and procedures to appropriate personnel	( )	( )	( )	( )
f) Educates the staff regarding scope and content of the policies and the proper use of policies as a reference and/or job aid	( )	( )	( )	( )

* In addition to being a professional, pharmacists, in many instances, are administrative managers as well. Most of their managerial skills must be gained through practical experience. Therefore, all interns should have a general understanding of pharmacy management.

The best person to provide such understanding is the pharmacist-manager of the site where the intern is being trained. The intern may observe directly the development and application of management skills.

In Sections "L" and "M", the boldface, underlined items are management tasks which the joint committee felt should be actually performed by all interns. Other responsibilities and tasks which are important in the operation of a pharmacy are those which are normally performed by the manager. They should, however, be discussed with the intern.

	Assigned	Discussed	Demonstrated	Performed
(1) Orients new employees	( )	( )	( )	( )
(2) Provides periodic in-service and/or refresher training for current employees	( )	( )	( )	( )
g) Periodically reviews and updates policies and procedures	( )	( )	( )	( )
II. Plans or assists in the design and the layout of physical facilities for pharmacy	( )	( )	( )	( )
a) Evaluates the functions to be performed in the practice setting	( )	( )	( )	( )
b) Plans for reasonable physical space for each function unit in coordination with physical arrangement to give the best work flow —provides technical equipment consistent with the size and scope of service provided —provides adequate storage, security (See Section L-XV)	( )	( )	( )	( )
c) Plans for the comfort and convenience of the patient and/or personnel	( )	( )	( )	( )
(1) Creates an environment conducive to patient/pharmacist and health professional/pharmacist interaction	( )	( )	( )	( )
d) Develops a good traffic flow pattern where applicable	( )	( )	( )	( )
e) Stores and displays products appropriately	( )	( )	( )	( )
f) Periodically reevaluates space allocations	( )	( )	( )	( )
III. Initiates and maintains a formulary system to meet the needs of patients and practitioners	( )	( )	( )	( )
a) Determines whether informal (unwritten) or formal (written) formulary system is appropriate	( )	( )	( )	( )
b) Determines patient and practitioner population to be served by formulary system	( )	( )	( )	( )
c) Determines guidelines for inclusion in the formulary	( )	( )	( )	( )

	Assigned	Discussed	Demonstrated	Performed
(1) Determines whether drug has potential for inequivalence	( )	( )	( )	( )
(2) Determines cost differential for different sources	( )	( )	( )	( )
(3) Determines whether there is a significant difference in formulation among products (e.g., taste, color, ointment/cream base)	( )	( )	( )	( )
(4) Determines allergenicity of product	( )	( )	( )	( )
(5) Inspects product for defects	( )	( )	( )	( )
(6) Determines manufacturer reliability	( )	( )	( )	( )
(7) Determines manufacturing source(s) (See Sections A-I, II, page 27)	( )	( )	( )	( )
d) Implements and administers the formulary	( )	( )	( )	( )
(1) Educates health care practitioners about formulary system	( )	( )	( )	( )
(2) Develops procedures for handling addition to or deletion from the formulary	( )	( )	( )	( )
e) Periodically reviews formulary, revising as necessary	( )	( )	( )	( )
IV. Establishes and administers a pricing structure for pharmaceutical services and products	( )	( )	( )	( )
a) Establishes a pricing structure based on sound management principles which would provide a "fair and reasonable" return on investment	( )	( )	( )	( )
b) Administers pricing policies and procedures —for patrons —for other health professionals	( )	( )	( )	( )
c) Computes service and/or product charge —Distinguishes between private prescriptions and various types of third party prescriptions —Calculates and records fee —Completes and submits third party claim form	( )	( )	( )	( )
d) Considers effect of third party payment systems on overall pricing structure (See Section L-VI)	( )	( )	( )	( )
e) Periodically reviews pricing structure and revises as indicated	( )	( )	( )	( )

	Assigned	Discussed	Demonstrated	Performed
V. Establishes and maintains an ongoing cost analysis program	( )	( )	( )	( )
a) Implements an effective accounting system	( )	( )	( )	( )
b) Identifies cost centers: prescription, nonprescription	( )	( )	( )	( )
c) Develops cost information retrieval system	( )	( )	( )	( )
d) Utilizes and evaluates the information generated	( )	( )	( )	( )
VI. Maintains and reconciles accounts receivable from various third party payors	( )	( )	( )	( )
a) Maintains a record system for third-party receivables	( )	( )	( )	( )
b) Completes appropriate billing procedures	( )	( )	( )	( )
c) Reconciles differences between charges submitted and payments received	( )	( )	( )	( )
d) Corrects and resubmits claim (See Section L-IV)	( )	( )	( )	( )
VII. Prepares and/or participates in the preparation of the budget and its controls in providing for pharmacy services	( )	( )	( )	( )
a) Reviews previous budget to evaluate adequacy in meeting needs	( )	( )	( )	( )
b) Projects changes in budget for previously budgeted items	( )	( )	( )	( )
c) Determines additions and/or deletions with justifications to previous budget	( )	( )	( )	( )
d) Establishes procedures for periodically reviewing and evaluating performance with respect to budget	( )	( )	( )	( )

		Assigned	Discussed	Demonstrated	Performed
VIII.	Reviews and/or prepares periodic reports of pharmacy's fiscal performance in relation to budget	( )	( )	( )	( )
	a) Establishes frequency of periodic reports	( )	( )	( )	( )
	b) Collates fiscal and budgetary data	( )	( )	( )	( )
	c) Evaluates performance against budget	( )	( )	( )	( )
	d) Prepares fiscal/budget reports	( )	( )	( )	( )
IX.	Develops and maintains an inventory system for all drugs, pharmaceutical supplies, etc., in active and inactive storage areas	( )	( )	( )	( )
	a) Establishes inventory goals	( )	( )	( )	( )
	b) Selects appropriate method of inventory control	( )	( )	( )	( )
	c) Develops method for maintaining optimal stock levels	( )	( )	( )	( )
	(1) Establishes turn-over rate	( )	( )	( )	( )
	(2) Establishes minimum stock levels, reorder levels	( )	( )	( )	( )
	(3) Monitors stock levels	( )	( )	( )	( )
	d) Develops and implements policy on returns: —From patient to pharmacy —From pharmacy to supplier	( )	( )	( )	( )
	e) Develops and implements policy on drug samples	( )	( )	( )	( )
	f) Periodically reviews inventory goals, method of inventory control, and optimal stock levels	( )	( )	( )	( )
X.	Determines primary and alternate vendors for pharmaceutical supplies	( )	( )	( )	( )
	a) Determines buying policy	( )	( )	( )	( )
	b) Evaluates vendor programs	( )	( )	( )	( )
	c) Institutes buying program to maximize cost effectiveness	( )	( )	( )	( )
	(1) Considers cost, speed of acquisition	( )	( )	( )	( )
	(2) Identifies local, wholesale, and "direct" sources	( )	( )	( )	( )

		Assigned	Discussed	Demonstrated	Performed
XI.	Negotiates with vendors (e.g., regarding cost, delivery schedule, etc.)	( )	( )	( )	( )
	a) Considers volume discounts and cash discounts offered	( )	( )	( )	( )
	b) Negotiates with sales representatives	( )	( )	( )	( )
	c) Uses bid system	( )	( )	( )	( )
XII.	Prepares and/or receives purchase orders (both routine and emergency, utilizing written, telephone, and other electronic media	( )	( )	( )	( )
XIII.	Verifies that purchase received from vendor conforms to the specifications on the original purchase order and authorizes payment	( )	( )	( )	( )
	a) Compares items ordered with items received	( )	( )	( )	( )
	b) Compares invoiced items with items received and marks according to established policy	( )	( )	( )	( )
	(1) Handles discrepancies, shortages or damages	( )	( )	( )	( )
	c) Verifies correctness of prices	( )	( )	( )	( )
	d) Verifies correctness of invoice extension and total	( )	( )	( )	( )
	e) Approves payment	( )	( )	( )	( )
XIV.	Develops and implements an appropriate pharmacy security system to prevent theft and/or drug diversion	( )	( )	( )	( )
	a) Evaluates practice site history and setting to determine overall security needs	( )	( )	( )	( )
	b) Establishes a secure physical environment:	( )	( )	( )	( )
	(1) Limits access to drugs	( )	( )	( )	( )
	(2) Restricts opening and closing procedures	( )	( )	( )	( )
	(3) Establishes emergency access and "after-hours" procedures	( )	( )	( )	( )

	Assigned	Discussed	Demonstrated	Performed
c) Establishes internal controls and procedures as indicated	( )	( )	( )	( )
(1) Develops and administers procedures for employee purchases	( )	( )	( )	( )
(2) Develops and administers procedures in the case of shoplifting or employee pilferage	( )	( )	( )	( )
(3) Implements self-audit procedures to deter drug diversion	( )	( )	( )	( )
d) Periodically reviews security needs and makes adjustments in physical environment and internal procedures as indicated	( )	( )	( )	( )
XV. Establishes and monitors a system to ensure proper storage conditions for perishable pharmacy items	( )	( )	( )	( )
a) Identifies all items requiring special storage	( )	( )	( )	( )
b) Provides equipment necessary to meet storage requirements in all drug storage areas	( )	( )	( )	( )
c) Establishes receiving procedures for the handling of special storage drugs	( )	( )	( )	( )
d) Establishes procedures to monitor the proper storage of special storage drugs	( )	( )	( )	( )
e) Establishes procedures to monitor the operation of special storage drug equipment	( )	( )	( )	( )
XVI. Develops and maintains a system for the regular removal from storage areas of all pharmaceutical items that are outdated or whose manufacture has been discontinued	( )	( )	( )	( )
a) Regularly reviews professional literature for recalled and/or discontinued items	( )	( )	( )	( )
b) Systematically reviews dating on all dated items in stock	( )	( )	( )	( )
c) Disposes of removed items in an appropriate manner	( )	( )	( )	( )
d) Participates in drug recalls (See Section I, p.46)	( )	( )	( )	( )

		Assigned	Discussed	Demonstrated	Performed
XVII.	Maintains a record file of current prescription orders including pertinent patient information and renewal data	( )	( )	( )	( )
a)	Complies with legal requirements for filing prescription orders	( )	( )	( )	( )
(1)	Records in proper format	( )	( )	( )	( )
(2)	Stores records to provide proper access and preservation	( )	( )	( )	( )
(3)	Maintains appropriate retention policies	( )	( )	( )	( )
b)	Reviews prescription order for completeness before filing	( )	( )	( )	( )
(1)	Checks prescription to determine that all legal requirements have been met	( )	( )	( )	( )
(2)	Checks that all necessary notations on labeling and container used are posted	( )	( )	( )	( )
(3)	Checks that prescription order is signed or initialed (See Sections B-II, p. 28, I, p. 46)	( )	( )	( )	( )
XVIII.	Maintains records of controlled substances and poisons received, stored, and dispensed by pharmacy	( )	( )	( )	( )
a)	Complies with legal requirements for maintaining inventory and purchase records	( )	( )	( )	( )
b)	Complies with legal requirements for processing prescription orders for controlled substances	( )	( )	( )	( )
c)	Complies with legal requirements for maintaining record of over-the-counter controlled substances and poisons (See Section I, p.46)	( )	( )	( )	( )
XIX.	Establishes, performs or supervises routine fiscal procedures	( )	( )	( )	( )
a)	Completes cash and charge transactions	( )	( )	( )	( )
b)	Operates cash register	( )	( )	( )	( )
c)	Prepares daily fiscal records and reports	( )	( )	( )	( )
d)	Performs billing	( )	( )	( )	( )
e)	Handles patron returns and credits	( )	( )	( )	( )
f)	Prepares correspondence and reports	( )	( )	( )	( )

	Assigned	Discussed	Demonstrated	Performed
XX. Assists in design or implementation of computer systems for use in the pharmacy (e.g., patient records, inventory control, drug utilization)	( )	( )	( )	( )
a) Determines feasibility of using a computer to meet pharmacy needs	( )	( )	( )	( )
b) Defines the functions the computer is to perform	( )	( )	( )	( )
c) Defines format of output necessary to meet pharmacy needs	( )	( )	( )	( )
d) Determines cost/benefit ratio of alternative systems	( )	( )	( )	( )
e) Insures that operators use the system competently	( )	( )	( )	( )
f) Monitors system for efficiency	( )	( )	( )	( )
g) Assures that system meets legal requirements	( )	( )	( )	( )
XXI. Develops and implements system for drug distribution and drug administration in institutional settings (e.g., nursing homes, hospitals)	( )	( )	( )	( )
a) Determines need for type of drug control system (e.g., unit dose, individual prescription, floor stock, combination system)	( )	( )	( )	( )
b) Examines available resources (e.g., personnel, space)	( )	( )	( )	( )
c) Develops appropriate drug control system including written policies and procedures (See Sections L-I, I, pp. 46, 49)	( )	( )	( )	( )
d) Obtains necessary resources (e.g., space equipment, personnel)	( )	( )	( )	( )
e) Trains personnel (See Section M-IV, p.59)	( )	( )	( )	( )
f) Implements system	( )	( )	( )	( )
(1) Transmitting medication orders to the pharmacy	( )	( )	( )	( )

	Assigned	Discussed	Demonstrated	Performed
(2) Inspecting medication and records on the nursing units	( )	( )	( )	( )
(3) Dispensing discharge medications	( )	( )	( )	( )
(4) Dispensing outpatient drugs	( )	( )	( )	( )
(5) Provision of "after-hours" and other emergency services	( )	( )	( )	( )
(6) Handles investigational drugs	( )	( )	( )	( )
g) Monitors and evaluates performance of system	( )	( )	( )	( )
h) Implements necessary changes	( )	( )	( )	( )
i) Participates in P & T committee and other institutional committees	( )	( )	( )	( )
j) Develops communication with all institutional departments	( )	( )	( )	( )
M. MANAGING PHARMACY PERSONNEL				
I. Establishes, administers and interprets personnel policies and procedures	( )	( )	( )	( )
a) Develops and promulgates written employee policies and procedures	( )	( )	( )	( )
b) Explains personnel policies to all employees	( )	( )	( )	( )
c) Administers policies and procedures	( )	( )	( )	( )
d) Establishes feedback mechanism to evaluate policies	( )	( )	( )	( )
e) Evaluates compliance with policies and procedures	( )	( )	( )	( )
f) Where necessary, counsels with employees	( )	( )	( )	( )
II. Prepares written job descriptions for pharmacists and nonpharmacists on pharmacy staff	( )	( )	( )	( )
a) Develops an organizational chart	( )	( )	( )	( )
b) Prepares job descriptions	( )	( )	( )	( )
(1) States title, duties, and responsibilities	( )	( )	( )	( )
(2) States any limitations	( )	( )	( )	( )
(3) Identifies the department and the immediate supervisor	( )	( )	( )	( )

	Assigned	Discussed	Demonstrated	Performed
c) Consults with each employee to insure understanding of the job duties	( )	( )	( )	( )
d) Develops a mechanism for revision of job descriptions as circumstances and personnel needs dictate	( )	( )	( )	( )
III. Recruits, interviews, selects and hires pharmacists and nonpharmacists for pharmacy staff	( )	( )	( )	( )
a) Establishes a continuous recruitment program using multiple channels and methods (e.g., newspapers, employees, schools, other referrals)	( )	( )	( )	( )
b) Uses a selection process (interviews, tests, evaluation of training and experience) which identifies able prospective employees and conforms to legal guidelines	( )	( )	( )	( )
c) Maintains appropriate records (sex, race, etc.) on applicants and selected employees required by legal guidelines	( )	( )	( )	( )
IV. Instructs and trains pharmacists and nonpharmacist staff in carrying out their assigned responsibilities	( )	( )	( )	( )
a) Evaluates employee performance against established standards of performance	( )	( )	( )	( )
b) Determines individual and group needs for training	( )	( )	( )	( )
c) Trains and/or refers employees for appropriate training	( )	( )	( )	( )
V. Supervises and evaluates job performance of pharmacy staff	( )	( )	( )	( )
a) Establishes procedure for evaluating job performance of pharmacy staff consistent with legal guidelines	( )	( )	( )	( )
b) Reviews or supervises review of evaluation of employees	( )	( )	( )	( )
VI. Schedules work hours for pharmacy staff	( )	( )	( )	( )

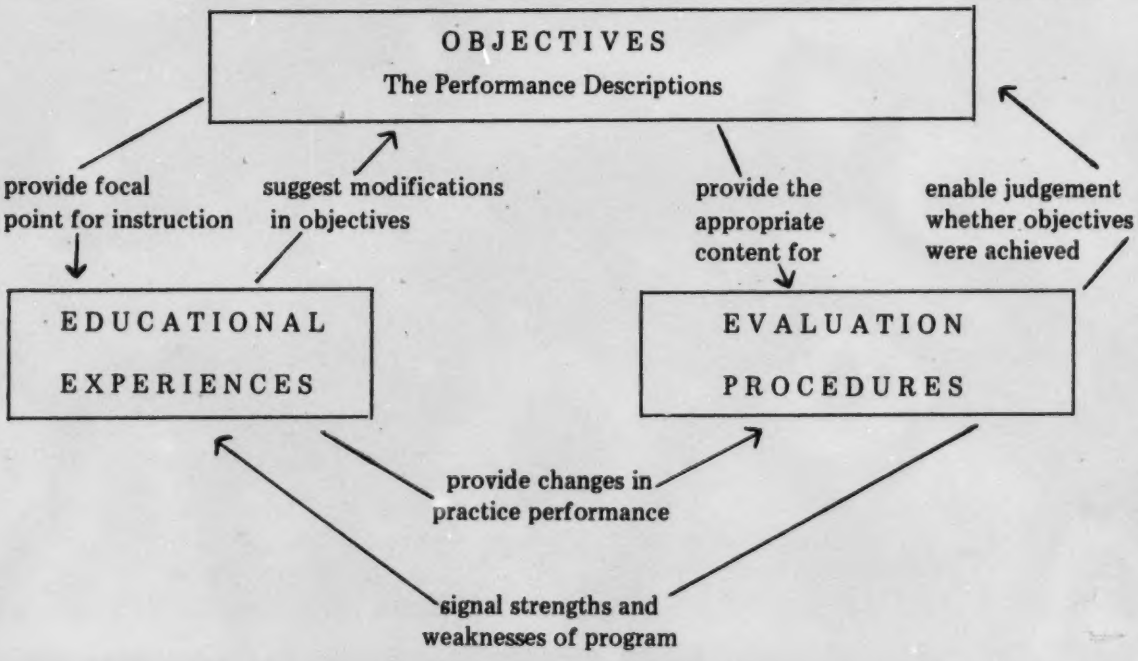
	Assigned	Discussed	Demonstrated	Performed
VII. Administers wage, salary and benefit programs for pharmacy staff	( )	( )	( )	( )
a) Establishes wage and benefit (e.g., pay, discounts, insurance, vacation, sick leave, holidays) policies consistent with competitive factors, legal requirements, and budgetary constraints	( )	( )	( )	( )
b) Assists employees in understanding and utilizing the wage, salary, and benefit program	( )	( )	( )	( )
c) Determines salary adjustments to the wage and benefit package, based on evaluation of employee performance, in a fair and equitable manner	( )	( )	( )	( )
VIII. Institutes disciplinary action and discharges pharmacy staff for cause	( )	( )	( )	( )
a) Notes violations of rules or procedures and/or identifies inadequate performance	( )	( )	( )	( )
b) Discusses situation with employee and records results of discussion	( )	( )	( )	( )
c) Decides whether to counsel, institute discipline, or discharge	( )	( )	( )	( )
d) Records and documents course of action taken consistent with legal guidelines	( )	( )	( )	( )
IX. Acts as a preceptor to students of pharmacy	( )	( )	( )	( )

V. EVALUATION

With the performance descriptions in Section IV, page 27 as a guide, evaluation of several types is facilitated. Performance of individual interns or externs within programs is measurable based on these descriptions. Judgements about measures of progress of *individual* interns may be referred to an *intern evaluation* or intern assessment. Decision-making by boards or colleges, concerning the modification of a *program* during its operation, is possible based on the performance descriptions. This type of improvement in instruction and program has been called *formative evaluation.* When boards and colleges examine entire programs after the completion of an instructional unit or examine the terminal performance of groups of interns or externs they are engaged in *summative evaluation.* Intern evaluation, particularly at the terminal level, can be a significant component of summative evaluation of programs. A challenge for the boards and colleges of pharmacy would be the development of standardized terminal assessment instruments that would not only measure terminal competence of individual interns or externs, but also the effectiveness of educational experiences designed to achieve gains in practice competency.

Why are the performance descriptions so critical in all types of evaluation? There is a cyclical relationship between these learning objectives (the performance descriptions), instruction, and evaluation. The performance descriptions are central to the process of evaluation. They determine what is measured both in terms of intern/extern performance (can the intern do what was expected?), and in terms of the educational experience (did the internship learning activities help achieve the teaching objectives?) (If not, how can the educational experience be modified?). Figure 6 depicts the relationship between objectives, evaluation and educational experiences.

Figure 6: The Relationship Between Objectives, Educational Experiences and Evaluation



A. Intern Evaluation

Evaluation of the intern's progress is essential in any internship program. Some boards and colleges may wish to develop their own objectives which enable the intern to achieve the performance levels described in Section IV, p. 27. That section provides performance descriptions which may serve as objectives with which internship programs may be evaluated. Appendix I describes how performance objectives may be developed and provides references to assist in their development.

1. Assessing the Intern's Entry Level Knowledge and Skills

The preceptor should assess the intern's knowledge and skills. A thorough assessment based on the intern's education level and the performance descriptions can assure proper placement at either the beginning, intermediate, or advanced level. Unnecessary duplication of previous experiences may possibly be avoided. Care should be taken to validate the preceptor's placement of the intern at any level on the basis of the interview. If after a brief exposure to practice activities evidence indicates that the intern cannot perform at the level assigned or cannot perform specific tasks assigned, it will be necessary to reassign him/her at some prerequisite level of performance and learning until mastery can be demonstrated. Instruction and demonstration of tasks may also be necessary before progress may be resumed. Plans for remedial instruction and demonstration or for reassignment should be made before the intern is placed into assigned areas of responsibility based on the entry-level assessment.

2. Performance Rating Scales

The most common instrument used for the assessment of practical experience programs is the rating scale. Such scales may express quality of performance in numerical terms or in overall performance terms. Typical descriptions of quality of performance include the following:

Does not meet requirements	Potentially meets requirements	Meets requirements	Exceeds requirements	Far exceeds requirements
1	2	3	4	5

Poor and inadequate	Below average	Average	Above average	Absolutely "Top Notch"
1	2	3	4	5

The task being rated may be based on performance objectives or on personal dimensions deemed to be necessary in practice. Because these types of scales are relatively easy to construct, they will probably continue to be used in internship programs for some time. Alternatives to these scales, although expensive to construct, exist for pharmacy practice. (1,2) Suggestions for use of rating scales will be made in two areas; effective performance descriptions and reduction of error in performance assessment.

Examples of performance to be rated include:

Dispensing prescriptions
Communicating with patients
Recommending over-the-counter drug products
Communicating with health care professionals
Complying with legal and professional standards

Examples of personal dimensions include:

Human Relations
(Displays an interest in others; is friendly and outgoing; is sensitive to the needs, feelings, and concerns of others; shows empathy; listens and responds appropriately to others' problems; acts in the best interest of others.)

Organizing and Planning
Utilizes one's own and other's time in an appropriate manner; is systematic and methodical in approach to the job; attends to routine matters on a regular basis; sets guidelines and meaningful goals; plans activities to meet objectives; is well prepared; is able to anticipate future need.)

Decision Making and Judgement
(Uses good practical judgement in coming up with sensible, down-to-earth solutions to problems; seeks out and utilizes important facts and information in decision making; recognizes and evaluates available alternatives; gives thought to possible consequences of decisions.)

Handling and Coping with Detail
(Is conscientious in following appropriate work procedures; is attentive to details and interrelationships in carrying out job duties; notices discrepancies and irregularities; keeps accurate records and documents actions; takes steps to insure accuracy of work; provides an appropriate amount of detail; keeps people informed; follows up on actions.)

Independence/Assertiveness
(Stands up for own point of view, even when under pressure; does not unquestionably accept the "status quo"; is willing to speak out against questionable tactics and practices; exercises independent judgement in dealing with other professionals.)

Teaching and Supervising Others
(Supervises and provides appropriate guidance; shares job knowledge; provides training and instructional opportunities; instructs others in appropriate and up-to-date techniques and procedures; provides constructive feedback; is willing to discipline subordinates in performance improvement; delegates where appropriate; sets a good example for subordinates.)

a. *Effective Performance Description*

Confidence can be placed in the performances described in Section IV, p. 27, because they have been validated nationally. Those which have been printed in bold face type have been identified by the joint committee as being essential for general practice. When additional performance objectives are written to enable the intern to achieve mastery of the responsibilities and tasks, care should be taken to insure that they represent the views of a large number of practitioners concerning the objectives' relevance to the responsibilities and tasks involved.

b. *Reducing the Error in Intern Evaluation*

The first source of error in intern evaluation is the performance description itself. If objectives and rating scales in internship programs do not adequately describe practice behaviors, the preceptor's observations (however accurate and unbiased) will be deficient. On the other hand, if bias enters into the performance objective and scale development processes, and objectives which do not adequately represent practice are included in the scales, the objective writer's bias creates error. The preceptor's observations, however accurate, will be contaminated with irrelevant data the objective writer *thought* was important but which may not be critical to practice. Performance objectives are not descriptors of what *ought* to be, but what *exists* in good practice.

A more common source of error in intern ratings is rater indifference. If the rater is not involved in objective writing or scale development and does not value the performance areas being rated, he/she is likely to be uncooperative and dodge his/her rating responsibilities. The following rater effects are likely to occur with rating scales:

i) *The Central Tendency Effect*— The rater simply completes all types of rating scales in about the same way for all of the persons he/she rates, failing to discriminate either among the different persons rated or within the performance range of a single person. The rater tends to rate everyone "about average."

ii) *The Leniency Effect*— This rater can only say or write "nice things" about everyone. Persons rated always get uniformly high ratings.

iii) *The Halo Effect*— The observer, in filling out the rating forms, may make an overall evaluative judgement about the person being rated and then proceed to be guided by this judgement, rating the person with "good"-sounding or "bad"-sounding ratings, irrespective of the actual performance content of the items in the rating scale. Frequently, prior knowledge about a person being rated transfers in this effect as when an intern, known to be an honor student, is rated on the basis of this academic achievement, rather than on the quality of the performances in the particular rating scales.

It is imperative that preceptors who are asked to rate be involved in objective writing and scale development. They must understand the performance descriptions and be committed to an accurate, unbiased attempt at rating the interns. One method to decide whether rater error is operating is to use several raters who have supervised the same intern and check their inter-rater agreement.

A common problem in the interpretation of rating scales is that the rater has no uniform basis or "anchor" with which to judge the intern's performance. What is "average" intern performance? On a scale of 1 to 10, what does a 10 mean? Shall a rating of "10" be compared with the performance of the best intern the preceptor ever supervised? With the performance of expert staff pharmacists? With the performance of chief pharmacists? It is useful to assist the rater in "anchoring" the rating scale by referring in the scale instructions to some external standard of performance; For example, a rating of 10 might mean that the intern exhibits the same level of proficiency as an experienced staff pharmacist.

3. Using Traditional Testing Methods

Rating scales may be used for overall measures of major dimensions of practice performance, but because they are subject to rater error, they should be supplemented by other measures. Simulations of practice behaviors may be used to corroborate performance ratings. Preceptors may ask interns to demonstrate certain critical tasks. Case studies are useful for discussing and assessing professional judgement and decision-making skills.

When traditional "paper and pencil" measures of applied knowledge are used, care must be taken to insure that they measure complex practice performance rather than simple recall of knowledge only. (3) The comprehensive description of pharmacy practice in Section IV, page 27 suggests many areas in which the application of knowledge may be assessed in traditional testing formats. Using the responsibilities and tasks as test specifications or "blueprints," "paper and pencil" tests may be constructed which may serve as useful substitutes for more complex performance measures. Such traditional "paper and pencil" tests may be used to assess the intern's ability to perform such tasks as:

a. Consulting appropriate references in response to stated problems

b. Assessing manufacturer's quality control data

c. Interpreting and evaluating prescription orders

d. Identifying the proper sequence of combination of product ingredients in an extemporaneously compounded prescription

e. Calculating doses

f. Storing preparations appropriately

g. Labeling drugs correctly

h. Making appropriate notations on prescription orders, refill records and patient profiles

i. Checking dispensed prescriptions for errors

j. Identifying therapeutic problems in patient records

k. Selecting appropriate over-the-counter drugs in response to stated problems

l. Filing prescriptions correctly

A more complete source of information in preparation of traditional tests is contained in the Handbook for the Design and Instruction in Pharmacy Education. (4)

B. Preceptor and Site Evaluation

Boards and colleges of pharmacy should utilize information about preceptors and training sites to make decisions about continuation, modification or termination of teaching relationships with sites and preceptors. Using the standards in Section IV, page 27, several kinds of evaluation should be utilized.

1. Intern Evaluation of Preceptor/Site
   Interns should be required to rate preceptors and sites. The benefit of such evaluations occurs through repeated ratings of the same site and preceptor over a period of time, thus eliminating the bias of a single rater.

2. Review of Intern Performance
   When intern performance ratings and test scores are summed over a period of time for each site, comparisons can be made which suggest strengths and weaknesses in the educational value of the practice experiences offered.

3. Site Visitations
   Regularly scheduled site visitations by the representatives of the boards or colleges provide firsthand observation of practice conditions and learning activities. Program changes based on preceptor and site standards discussed during such visits are possible. These permit continuous program improvement. Termination of a preceptor or site for cause should be an alternative to be applied when program adjustments in instruction are not made. This termination procedure is more easily facilitated through the adjunct faculty appointment mechanisms employed by the colleges than it is by boards of pharmacy in traditional internship programs.

C. Program Evaluation

Unlike intern evaluation, which involves decisions about individual learners, program

evaluation involves questions about improvement of the entire teaching and learning experience. "Should a certain site be dropped from the program?" "How can the intern be exposed to the practice of nursing home consultation?" Here, administrative questions about the quality of the internship or externship/clerkship program itself are identified. They deal with the important program evaluation questions of whether a given internship or externship/clerkship program should be continued, modified or terminated. The program evaluation questions are raised at several levels such as when a faculty approves or reviews an externship/clerkship course, when the ACPE reviews an externship course as part of the curriculum review, or when a state board of pharmacy reviews an externship/clerkship course to determine the number of hours to be credited towards the 1500 hour internship requirement.

1. Program Evaluation Questions

   Internship and externship/clerkship program evaluation raises a series of important questions to boards and to colleges of pharmacy. These may be grouped into questions concerning quality of program content and questions of structure and delivery of instruction. Questions regarding the quality of program content may include the following types:

   Do program learning experiences reflect all the performances necessary to practice pharmacy?

   Are practice performances explicitly stated and validated?

   Is there a student evaluation system to insure that performance objectives are met?

   Do preceptors and sites meet established standards?

   What is the incremental gain in performance during each level of internship?

   What is the effect of postgraduate internship instruction?

   What is the level of competence demonstrated by interns completing the terminal phases of advanced internships?

   How does performance of interns in one state or from one school compare with performance in other states and schools?

   Operational questions of structure and delivery of instruction may include the following types:

   How are students assigned to sites and preceptors?

   At what educational level is the most appropriate time to begin internship instruction?

   What is the effect of rotating interns or externs through various sites to maximize their exposure and experiences?

How are special internships, i.e., industrial internships, included within the overall internship requirements? What specific procedures are used for evaluating the experience based on the standards in Section IV, page 27?

2. **Standardized Measures Needed**

Program evaluation judgements about internship and externship/clerkship are interstate and interschool in nature. NABP internship standards affect schools and boards in 47 states. ACPE standards affect all schools which maintain their accreditation. This manual considers three main elements in the education of interns; specification of learning objectives, instruction and evaluation. Its main contribution is the careful specification of practice behaviors to be used as the basis for instruction. Some instructional guidelines are furnished. The third element, evaluation, is not treated thoroughly in this manual. However, the need for development of standardized performance rating scales and other measures of internship performance is clearly recognized. Only with valid and reliable standardized instruments can meaningful interstate and interschool comparisons be made.

REFERENCES

(1) Elenbaas, R.M., and Jacoby, K.E., "Pharmacy Resident Evaluation Using a Behavioral Rating Scale," American Journal of Hospital Pharmacy, 31, (1974) p. 938

(2) Grussing, P.G., Silzer, R.F., and Cyrs, T.E., Jr. "Development of Behaviorally-Anchored Rating Scales for Pharmacy Practice," American Journal of Pharmaceutical Education, 43, No. 2, (1979) p. 115

(3) Pharmacists for the Future: The Report of the Study Commission on Pharmacy, Health Administration Press, Michigan (1975) pp. 122-128

(4) Grussing, P.G., "Preparing Classroom Tests," in Handbook for the Design of Instruction in Pharmacy Education, T.E. Cyrs, Jr., Ed., American Association of Colleges of Pharmacy (1978) pp. F1-F24

VI. BECOMING A PROFESSIONAL

A. Participation in Professional Association Activities

One of the characteristics of a profession is that its members organize themselves into voluntary professional groups. These groups exist to inform, educate and serve their members and to perpetuate the profession's knowledge and skills. The specific goals of professional associations are normally set forth in their respective constitutions and bylaws approved by the membership. Membership in professional associations is not mandatory and is not a condition for licensure or registration. Licensure and registration are requirements set down in the state practice act to assure the public of responsibility for its protection and safety. Persons holding a license are permitted to practice, assume the responsibilities delegated in state practice acts and use the designation as a pharmacist. Unlicensed persons are prohibited from working in the field except under pharmacist supervision. Interns or pharmacists may wish to join one or more of these associations in order to be more aware of developments in the profession and to participate in these developments. Student memberships and activities are also usually available. Whether or not to join such associations is, of course, the choice of each individual intern or pharmacist.

The affiliation of individual interns and pharmacists goes beyond mere membership, however. Time and energy are required to serve on committees and to participate in beneficial projects. By inviting the intern to participate in professional meetings and other activities, the preceptor is appropriately recognizing the opportunity of the intern to begin to make a professional contribution early in the intern's professional career.

B. Participation in Continuing Education

Maintenance of professional competence through continuing education is a responsibility of the pharmacist. Initially qualified through formal education, internship and licensure, pharmacists remain competent through both on-the-job experience and planned learning. Competence is maintained, in part, through active practice, but is supplemented through planned learning activities. Preparation for life-long learning begins during the formal education process. Learning styles acquired during college prepare the pharmacist to build from his/her formal education, selecting meaningful continuing education experiences which enhance practice competence.

Whether continuing education is voluntary or mandatory in the intern's state, the preceptor should both acquaint the intern with available learning resources, and, by example, demonstrate through participation in continuing education activities how the maintenance of individual competence is a person's lifelong professional responsibility. A source of continuing education programs in pharmacy is the list of approved providers published by the ACPE (1). This agency accredits program sponsors, who then offer continuing education programs which may be accepted by state boards of pharmacy for mandatory continuing education purposes. Pharmacists in states with mandatory continuing education may contact their state board of pharmacy for names of approved program sponsors and of approved programs.

C. Maintaining Drug Information

Pharmacists perform multiple functions. They dispense needed medication as well as provide information to physicians and patients to ensure that drugs will be prescribed and used correctly. The responsibility of providing drug information has long been established as a pharmacist's role and utilizes his/her expertise in pharmacology and drug product selection. In more formalized settings, drug information centers have successfully promoted rational therapeutics, decreased drug overutilization, and kept physicians abreast of the most current literature with unbiased evaluations of new drugs. On a smaller scale, all pharmacists in general practice will be expected to provide the same professional services.

Therapeutic problem solving is an important responsibility since the usefulness of the drug information provided is directly related to its application in practice. This requires the pharmacist to assess each particular patient situation, evaluate pertinent drug literature, and come to some coherent, relevant conclusions and recommendations. Only in this way can a pharmacist provide useful drug information to other health professionals and patients whom he/she services.

Therefore, in order to perform these professional responsibilities, it is imperative that all pharmacists maintain a current drug information base through the following mechanisms:

1. A useful, up-to-date pharmacy library
2. A list of experts, important contacts and emergency phone numbers
3. Familiarity with investigational drug procedures and adverse drug reaction reporting procedures
4. Participation in continuing education programs
5. Familiarity with primary journal literature
6. For institutional pharmacists, participation in hospital formulary maintenance and pharmacy and therapeutics committee activities
7. Maintenance of a current filing system for rapid drug information retrieval

Time and space do not permit discussions on all of the above topics. Suggestions for a pharmacy library and useful telephone numbers are included below.

Directions and indications for using particular reference sources, as well as a practical, systematic approach to answering drug information questions, have been described in the literature. (2) Pharmacists should always obtain as much patient information as possible so that the most useful, clinically applicable answer can be formulated. However, once an unfruitful attempt at answering a question has occurred, the pharmacist should know when to consult a local or regional drug information center. A listing of these centers can be found in the American Journal of Hospital Pharmacy, 34:1201-07, (1977.)

The importance of maintaining an up-to-date information base cannot be over-emphasized. Not only can better patient care and rational drug therapy be promoted, but pharmacists will derive professional and personal satisfaction as their proficiency and opportunities for professional growth and service expand.

Suggested Pharmacy Library Reference List

The selection of particular texts or references are based on the scope of activity in each pharmacy, as well as by the type of professionals with whom the pharmacist deals.

1. AMA Drug Evaluations, 3rd edition, 1977
   Publishers Science Group, Inc.
   545 Great Road
   Littleton, Massachusetts 01460

2. American Drug Index, 1979
   J.B. Lippincott Company
   E. Washington Square
   Philadelphia, Pennsylvania 10105

3. American Hospital Formulary Service
American Society of Hospital Pharmacists
4630 Montgomery Avenue
Washington, D.C. 20014

4. Applied Therapeutics for Clinical Pharmacists, 2nd edition
Applied Therapeutics, Inc.
P.O. Box 31-747
San Francisco, California 94131

5. Blue Book/Red Book, 1979
The Hearst Corporation
224 West 57th Street
New York, New York 10019

6. Clinical Laboratory Medicine, 1978
Year Book Medical Publications, Inc.
35 E. Wacker Drive
Chicago, Illinois 60601

7. Clinical Interpretation of Laboratory Tests, 7th edition
F.A. Davis Company
1915 Arch Street
Philadelphia, Pennsylvania 19103

8. Clinical Toxicology of Commercial Products, 4th edition
Williams & Wilkins Co.
427 E. Preston Street
Baltimore, Maryland 21202

9. Drug Interactions, 4th edition, 1979
Lea and Febiger
600 South Washington Square
Philadelphia, Pennsylvania 19106

10. Evaluation of Drug Interactions
American Pharmaceutical Association
2215 Constitution Avenue, N.W.
Washington, D.C. 20037

11. Facts and Comparisons, Inc.
1100 Oran Drive
St.Louis, Missouri 63137

12. Handbook of Injectable Drugs, 1977
American Society of Hospital Pharmacists
4630 Montgomery Avenue
Washington, D.C. 20014

13. Handbook of Nonprescription Drugs, 6th edition
American Pharmaceutical Association
2215 Constitution Avenue, N.W.
Washington, D.C. 20037

14. Harrison's Principles of Internal Medicine, 8th edition, 1977
McGraw-Hill Publishers
1221 Avenue of the Americas
New York, New York 10020

15. Manual of Dermatological Therapeutics
Little, Brown and Company
34 Beacon Street
Boston, Massachusetts 02154

16. Manual of Medical Therapeutics, 22nd edition, 1977
Little, Brown and Company
34 Beacon Street
Boston, Massachusetts 02154

17. Martindale's The Extra Pharmacopeia, 27th edition
Drug Intelligence Publications, Inc.
Dept. AW-1 Hamilton Press, Inc.
Hamilton, Illinois 62341

18. Merck Manual, 13th edition
P.O. Box 2000
Rahway, New Jersey 07065

19. Pediatric Dosage Handbook
American Pharmaceutical Association
2215 Constitution Avenue, N.W.
Washington, D.C. 20037

20. Pediatric Therapy, 5th edition, 1975
CN Mosby Company
11830 Westline Industrial Drive
St.Louis, Missouri 63141

21. The Pharmacological Basis of Therapeutics, 5th edition, 1975
Macmillan Company
866 Third Avenue
New York, New York 10022

22. Pharmacy Law Digest
Douglas-McKay, Inc.
P.O. Box 15565, Dep't. PLD
Milwaukee, Wisconsin 53215

23. Physician's Desk Reference, 33rd edition, 1979
Medical Economics Company
680 Kinderkamack Road
Oradell, New Jersey 07649

24. Remington's Pharmaceutical Sciences, 15th edition
Mack Publishing Company
20th and Northampton Streets
Easton, Pennsylvania 18042

25. Stedman's Medical Dictionary, 22nd edition, 1972
Williams and Wilkins Company
428 E. Preston Street
Baltimore, Maryland 21202

26. United States Pharmacopeia
US Pharmacopeial Convention, Inc.
20th & Northampton Streets
Easton, Pennsylvania 18042

27. United States Pharmacopeia Dispensing Information
U.S. Pharmacopeial Convention, Inc.
20th & Northampton Streets
Easton, Pennsylvania 18042

Suggested List of Experts and Important Contacts

Center for Disease Control (404) 329-3356

National Institute of Health (301) 496-4000

National Cancer Institute (301) 496-4000

State Pharmacy Board

Local/Regional Poison Information Center

Local/Regional Drug Information Center

Local/Regional Drug Abuse Center

Local Health Department

State Pharmacy Association

Drug Enforcement Administration, Regional Office

REFERENCES

(1) "Continuing Pharmaceutical Education—Approved Providers," The American Council on Pharmaceutical Education, Chicago, 1979

(2) Cardoni, Alex A., et al, "Drug Information and the Community Pharmacist" Journal of the American Pharmaceutical Association, NS17 (1977) pp. 680-684

APPENDIX I

1. **Developing Performance Objectives**

A classic approach to developing performance objectives involves three steps:

a. State the objectives as a general learning outcome;

b. Express the objectives in terms of learning outcomes, not as descriptors of the teaching activity;

c. Incorporate the *conditions* imposed on the learner in practice and performance standards expected, where appropriate.

The performance descriptions in Section IV, page 27, provide steps one and two. They are stated as sub-tasks and as tasks which, when performed, give evidence that a particular responsibility of a pharmacist has been accomplished. Internship or externship/clerkship programs may specify additional objectives for the learner. These may be objectives which enable the performance of tasks described in Section IV, page 27, or which may supplement the responsibilities and tasks statements. For example, the responsibility of pharmacists in institutional settings is described in Section IV, page 27, as:

—Develops and implements systems for drug administration in institutional settings

Several tasks and sub-tasks then provide specificity for this broad responsibility. In order to properly orient the intern or extern to the institutional setting, a program may, for example, specify the following objective:

—The intern shall be able to identify the responsibilities and functions of all of the other institutional departments and their relationship to the pharmacy in the process of patient care.

With this objective as a general learning outcome, the program might then specify a number of *specific* types of learning activities that would indicate attainment of the objective. The example above might then be followed by:

a. *Discuss* interdepartmental relationships with the preceptor

b. *Follow* several drug orders from the time they are written by the physicians until the medication is administered to the patient.

c. *Visit* all hospital departments.

d. *Dispense* special orders for drugs and other pharmacy-related items ordered by the laboratory, the housekeeping department, the dietary department, central supply, the operating room(s) and the emergency room.

Note that these specific performances enable the objective to be *achieved* and that their performance gives evidence that the objective has been achieved. Note also the emphasized action verbs in these examples. These verbs depict visible behaviors readily observable in practice. Care should be taken to avoid relying only on descriptors of classroom type behaviors such as "lists," "describes," etc., or on "nonaction" verbs such

as "knows," "comprehends," "understands," "familiarizes," and "appreciates." The emphasis is on selection of observable behavioral items that will insure that the intern will *perform* something, and not simply be expected to "understand" how to perform it.

A second step in the development of performance objectives is to express them in terms of *learning outcomes*, not as descriptors of the teaching activity. The purpose of internship is to modify the intern's professional behavior. Thus the objectives must be stated in terms of the *intern's* performance, activities the intern can do, and for which the preceptor can hold the intern accountable. One of the responsibilities of the pharmacist requires the intern to comply with the legal and professional standards relating to practice and to operation of the pharmacy. In order to insure that the intern will be able to perform this responsibility and the tasks which describe it in more detail, the program may specify a number of specific performance objectives. Examples of such objectives might include the following:

Example No. 1 — During the period of internship training the preceptor will cover policies and procedures for handling of controlled substances.

Example No. 2 — The intern will purchase, store and dispense controlled substances, and will maintain records required by law.

a. Prepares DEA form 222c's for Schedule II substances
b. Orders Schedule II-V drugs
c. Receives controlled drugs and files order forms, invoices
d. Monitors MAR's and proof-of-use forms before dispensing and filling (institutional)
e. Files prescriptions
f. When possible, participates in biennial CSA inventory
g. Inventories newly scheduled drugs
h. Visits drug storage areas in care units and monitors security and recordkeeping (institutional)

Note that the first example only briefly states what is expected in the internship and states it in terms of what the *preceptor* is expected to perform. The second example more appropriately states the objectives in terms of what is expected of the *intern*.

The third step in developing performance objectives is to incorporate the *conditions* imposed on the learner in practice and the performance *standards* expected, where appropriate. The first condition of this step is met when the intern performs in an actual practice situation. The second condition should be specified by each preceptor depending on the task involved and the educational level which dictates the level of internship; beginning, intermediate, or advanced.

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